

FIG. 1

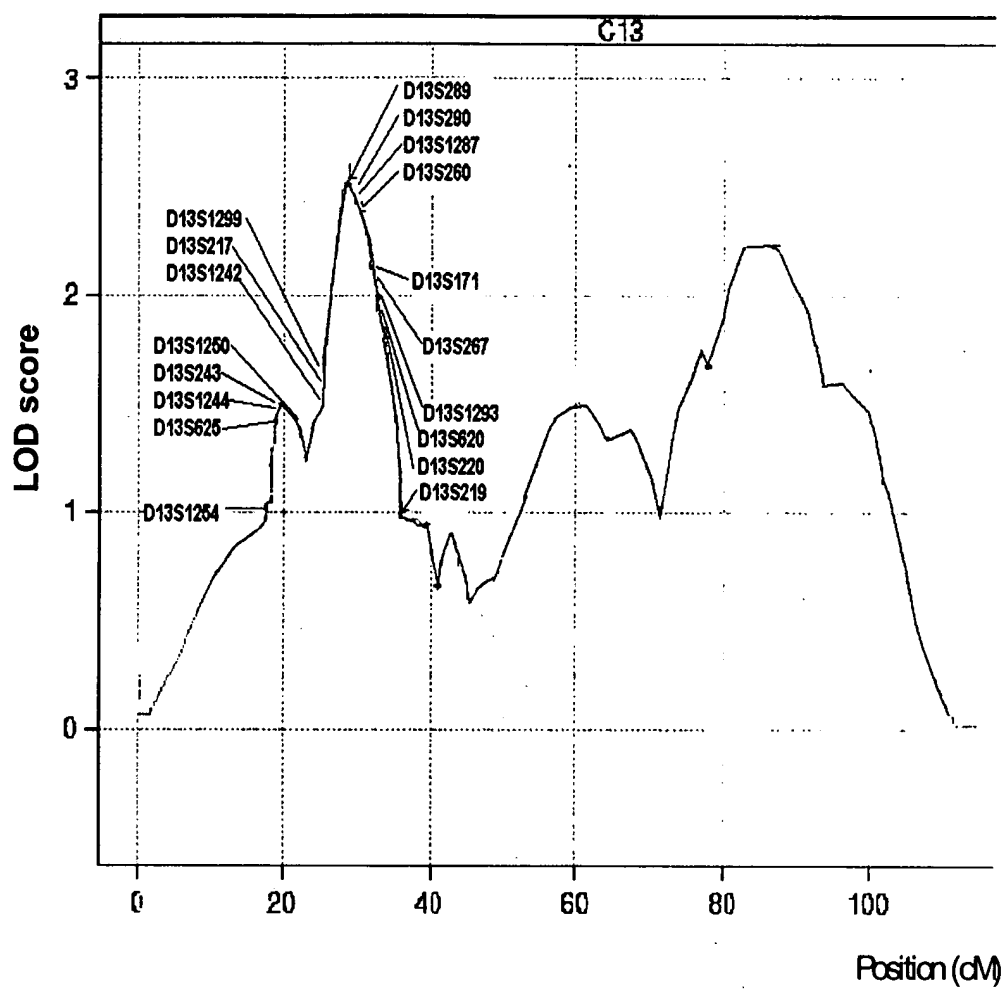


FIG.2

Location of haplotypes showing association  
( $p$  value  $< 10^{-5}$ ) with the disease

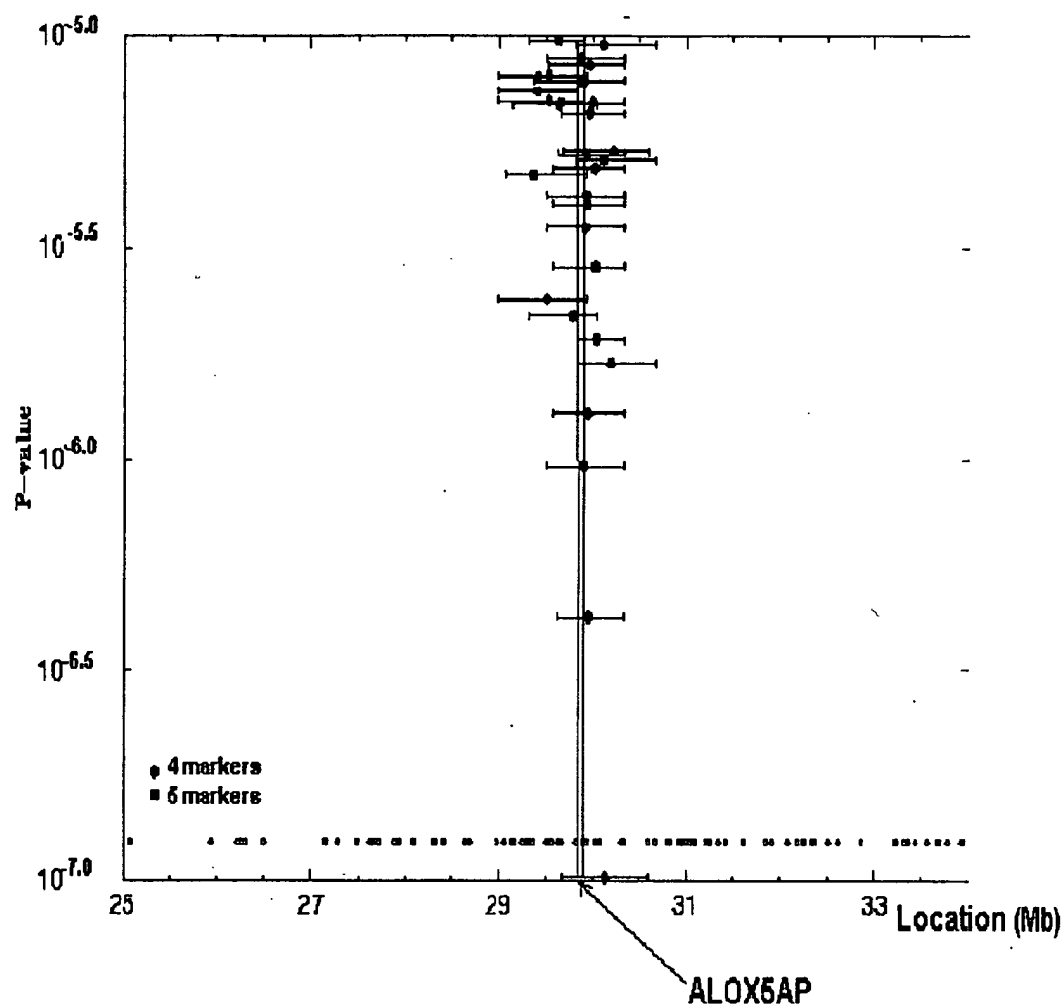


FIG. 3.1

Area included in all (except one) haplotype

FIG. 3.2



# Markers and genes around the FLAP gene

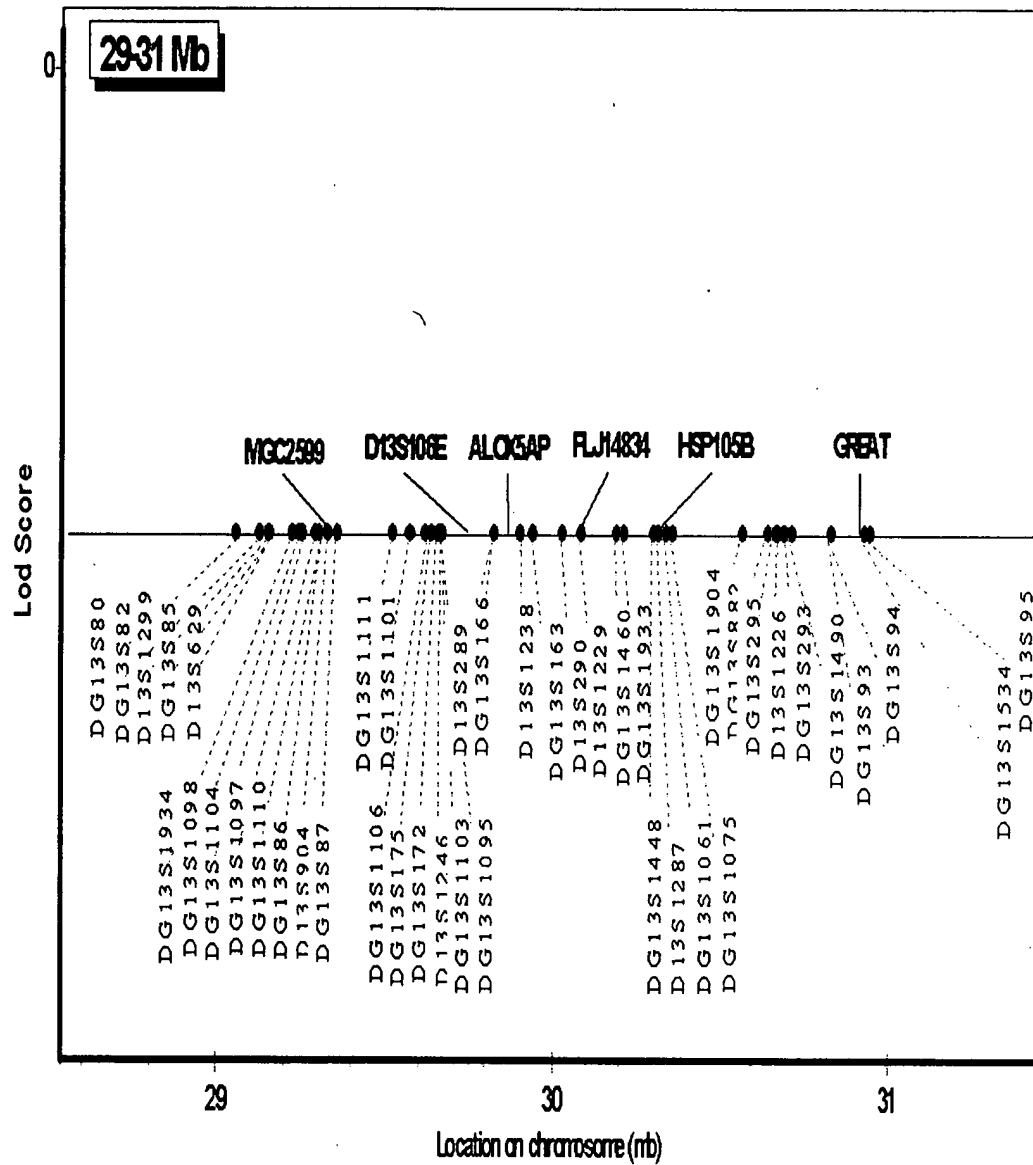
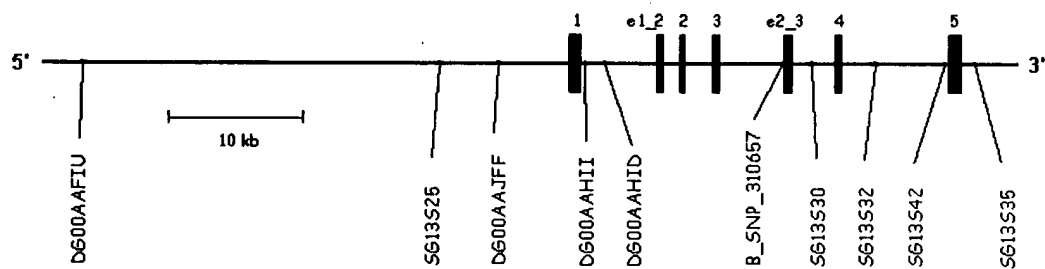


FIG. 4

**FIG. 5** Relative location of key SNPs and exons of the ALOX5AP/FLAP gene (exons shown in vertical rectangles). Haplotype length varies between 33 to 68 kb.



ID CHROMOSOME 13: 28932001-29146000BP in NCBI build 34.

SQ Sequence 214000 BP

GACTAAGATG AATATGCATT CATTACACAA AATCTCATAT TCCCAAAAAG CAGGAAAGGT	60
AGTACAGTGA GATGGATGAT GCCTTCACAT GACTCAGATG TCACGTGTTT CTCACCATTG	120
AGACCCCCAA GGCACCCCCT CCCAGCATTT ACCAGAATGT GTGTGTAATC ATTTACAGTG	180
ATTTGTGTAA TTATTTGATT GTTTCTCTTG TATCCTGTAG CAATGAGGGT AGAGATTATA	240
TCCCACCTAC CACTGCAGCT CCAGGATCCA GCTTCACAAA CATTTGTTGA ATGAATGAAT	300
AAGAAAAGAG GACACCCCCA AAGAGGCTGC AAGGGAAAAA GCTACAAAGA CAGAAGCACC	360
AGGAAAAAGT AGGGTCATGT AAGTCAAAGC AGGAAAAAAG TTCCATGGTG GGGTGGTCAG	420
CAGTGTCTAA TGCCACGAAG GCACAAAGTA GGATAAAGGT TAAAAATCAG CCTTTGGTTT	480
TGGCAAATAT GAAGCTTATC GGTAGCCTTA GCGAGAACAA TTCCATCAGG GAGCAGAAGC	540
TAAGTGCAGT GGGTTGAGTC ATCAAGCAGG CATAAGGAAG TAGGGATACC CCATTATAAG	600
CTACTCTTTC AAGAAGCTCA AATCTGAAGG TTAGGAGAAT TAGGTCAGTA GCTAGAAGGA	660
AATGTGGAGT CGAGGGGCTG TTTTCTCTCC CAAGGAGTAT AAAGGTGTAA CGTTGCATGA	720
AACCACTTCA GACAAAGGCC GATATCAATA GAGAAGTTAA AACGCACGCC TCAAGATTG	780
GGAAGGCTTG GGGTTGGGCT TAAAGAGGTA GGAGCATATT TCCTATCCTA GGACAGAGAA	840
TAAAGAAGAA AGGATAGGTT CCCATGGAGA TAAATTTCTA AGTGTTAAAG AAGAGGCTCA	900
GAAAATTCTA GCATGATAGG CTCACTTTTT TCTTTTCCCA TGAAGGAGAT GGCAAAGTCA	960
ACTGACATGA GAAAGGTGAC AATACTGATG GGTTGAAGAG CGATGGACAT TTGAAATAAC	1020
TTCTTAGACC AGTAGAGGCT GGAGTTCATA AATCAGAACT GGCTACAGGT TATATATGTT	1080
TTTTTTTTTT TCTCCAACAG CATAAGATAA CAGAGCGAAG TCTGTAGAAA TGAAAGAAGA	1140
GTCAGATGAG GATAGCTGGA GCTAGTGCAA GGAGGGAAGC ACCACGGTGG GAGCCAGGTA	1200
CCCCCTGGAT TTATAATTCA TACTGAATTC CAACAACAGA AGGGCTCTAA GCAGGAGAGT	1260
GACAGATTTT AGAAGACTGA GACACATTTG GTAAAAAATA GTAGGAGGAA AACCTGATTC	1320
TGGAATTAGG GCAGCCAATA GACGGCAGTA TTTTCAGAAA GGAGGGAATG GTCAACAGTG	1380
ACTTTCTAGT CTGGAGCTCA GGAGGAAGAG GCAACTCTAC CTGATGGTAT TAAGATCATG	1440
GAGGTAGCTG AGATCACCTA GCTTGTGTGT GTCAAATGAG AAAAGAAGAA AGAATAGGAG	1500
AAGTTCCCCA GGAACACAGA CATTAGTGG GGCTGTGGTG ACAACACAAG AAGAGAGGCT	1560
TGCAAAGGAG CCTGAGCAGC TGTCATGAGA GAGGTAGGAT GGTGGACTCG GAGAAGAGGC	1620
AGAAGATGTT CTAAAGGAA GGACACTGCT GCCAAGTAGT CAGCCAATTG GTGACAAAGA	1680
AAGACCCTGT TGCGAGAAAA AAAGTCAGTG AAGTAGTAGG AACGATGACA GATGACACTG	1740
GGTTGAAGAC TGAGGAGAGA GAAGTGTAAG AGTGGAAGCA GAGGGCAGAC CACTCTTCTG	1800
AGACACTGAA GAGGCATAGT TAGAAATAAA GGGGAGTCGC CAGAAAGGAA TTTGTGGCTA	1860
AGCAAGAGGT TTTCTTTAAG ACTGAAATAC ATAAGCATGA TTAAATGCT GCTGGGATGG	1920
AGTTCACAGA CCTGGAAGAC AGAAGACAAA GCGGATCATC AAGATAGTGG AATTTACTGA	1980
AATGAGAGAG GAAAATCCCA TCCACAGGAA ATGCAGACAT GAGGGAGGGG CCAGAAGGAC	2040
AGTGAAAACA TCAGCAACTG GTCCCCAAC TTCTGAGTGA ATGTGGAGAT ATAATCAGGT	2100
AAAGGACTGC ATCATCTCCC TGGTTAATGA TGGAGTCAGA GAAAAGAGTG TCTTATACAG	2160
AAGTTGTGAT ATACTTGGCC GGGCGCAGTG GCTCAGCCT GTAATCTAAG CACTTTGGGA	2220
GGCCAAGGCA GGCGGATCAC CTGAGGTCAG GAGTTCATGA CTGGCCTGGT CAACATGGCA	2280
AAATCCCACC TCTACTAAAA ACAAAGCCT GTAATCCCAG CTACTAGGGA GGCTGAGGCA	2340
GGAGAATCGC TTGAACCCAG GAGGCAGAGG TTGCAGTGAG CCAAGGTCGC ACCACTGTAC	2400
TCCAGCCTGG GCAACAGAGC TAGACTCAGT CTCAAAAAAA AAAAAAAG ATGTATTTAT	2460

FIG. 6.1

TCTCACTGTA TAAATTTCTG TGTAAGAAAT ACTCTCTCAT ATAGAAGTAA ATTTATATAT 2520  
AAAATTATAT AGAACCACTA TAAAATACTC AGGTTTATAA AATTTATATA TAACTTGTT 2580  
GACATATAAA ATTCCATGTA AATGACTATA AAGTACTCTT ATATGAAAAG TATATGAATT 2640  
AAATTATATA TCAACTTACT TTTATATTAC AGTATTTTGT TTATACAGAA GTTTATATAG 2700  
TGACAATAAA TATTTCTCAA GAACGATTTC ACATAATAGA AGTATAAATT ATCCATTTCC 2760  
AATAGTGAAG AAGAAAAGCA GTTCCACACC AGTGACAGGG CTACGAATCT AAGAGGTACA 2820  
AAGACTTCAT TCTTAGAGAC ACTGAGGTCA GGGCATGGCC AACACATCTG AAGCTGATAG 2880  
AATTGGCGCT GGGTTGGTTG GAGACGGTAC GGTATTACTA TTACAATGGC AGACGCTTGG 2940  
CCTTGATAAC TAGCCAATCA GGGGGAAAGA TTCTGGTTTC CTCTGTTATT ATCTGAACTA 3000  
GTGTGTTCCC AAAGGGTTAA GATGGTTTAT GGAAGGCACA AGATCAGCAA ACCATAAAGG 3060  
ATTAGCACTA AGAAGGAAGG AAGTAGACCA AGTGTTAATG GCGATGCCAT GTAAGAGCCA 3120  
GGTCTGCGAT GTATGTTCTA CATGGTTTGG GGGGTAAAAA AAATGTCAGC CTCCAGAGCA 3180  
CAGGGCTTTA AGCCTCAAGT ACTGTTAACA GTAGAGTTTA CTAGTCTACA GCAGGAATTA 3240  
CAACCACTAA TTCTAAGGCC AATTACTCAG GCAAGTTTAA CTAGAACAAG GAAGCTCTGC 3300  
TTCGAGGTCA AATCGATTTC TGCAATTATA GAAGCATCTA GATGTTCTCT GTTCAAACAA 3360  
TGGGGTAAAA TCCCCACACA TTTTATTTCT GACAGAGTGT TCCCTATATT GCCTGGCCAG 3420  
GAGTGATAAC ATTGCTTGGC TATTATTAAT AAAACATTGC TGTGGCTGGG CGCAGTGGCT 3480  
CACACCTGTA ATCCTGGCAC TTTGGGAGGC TGAGGCAGGA GGATCACTTA ACTCCAGGAG 3540  
TTTGACAGCA GCCTGGGCAA CATAGCAAGA TCCCATCTCT CTAAAAAATT TAAAAATTAG 3600  
CTGGGTGTGG TGGCAGACAC CTGTAGTCCC AGCTCCTCAG GAAGCTGAGG TGGGAGGATC 3660  
ACTTGAGCCC AAGCAGGTTG AGGCTGCAGC GTGCTGTGAC TGTGCCACTG CACTCCAGCC 3720  
TGCGCAACAC ACTGAGAGAG ACTCTGTCTC AAAAAAATAC ATCAAATAAA AATTAAGC 3780  
CCATTTCTTT CTTTTGGTAC ATTACAGCCA TGCACTTCAA AGGCTAGCAC AATTATTTT 3840  
CTGCAGTTCT ATATTTAGAT TCTAGTTAGA AGTAACCTAG GACCTTCATG TTAGAGGTGT 3900  
CTTTGGCAAA ACTGTTATGT GAGTGAAACG TTTAATCAAT TGAGGATAAA GATGCCTCAT 3960  
TGCTAATGAA GATGTGGTTT AAGGATTTTA TGCACCCAGT TCATTTATTA ACAACTTGT 4020  
TAAGCTTTAT TAGCTGGGTC TCTACTTTAT AACTGTGTTT TTTAATTTAC AAGACAATAA 4080  
AAATTAATAA GGTAAATGGG AAACCTATCT TGCTTTTCAA TAAATAATTT ATTTTAATAA 4140  
CTTCGTGGGC ATGGTGGCCA AAACATTTTA GCTGTGAAAA TAATTTCAAT TCATATTTT 4200  
TTGGAATCAA TATTAAGAGG TGATATATTC TCAATGAAA AGTGGACAAA TGATCAGTTA 4260  
TAGGACATGA TTAAGAACT AACCATGAGC CACGTGCAGT GGCTCATGCC TGTAATCCCA 4320  
GCACTCTGGG AGGCCGCGGT GAGCGGATTG CTTGAGCCCA GGAGTTCAAG ACCAGGCTGG 4380  
GCAACATGGC AAAAACCCGG CTCTACTAAA AATGCAAAAA AAAAAAAAAA AAAAAAATT 4440  
TAGCTGGGTT TTGGTGGCTT ATGCCTGCAG TCCCAGCTAC TCGGGAGGCT GACTCGGGAG 4500  
GCTGAGGCAC AAGAATCATT TGAACCCAGG AGGCAGAGGT TGCAATGAGC TGAGAATACA 4560  
CCACTGCACT CCAGCCTGGG CAACAGAGAG AGAGAGACTC AGTCTCAAAA AACAAACAAA 4620  
CAAACAAACA AACCGCTGCC CTGTGCTTGG AGAGATCTGT TTACCTTTAC CACTAAAGAC 4680  
TGTTGGAAGT AAATTTTAGA AGGTTTATAA TACCTAAAAG TAATCACTTC TGTCTTATGA 4740  
AAGGTTCTGC TGAGATTTT CTATTGTGGC CACTAGTGGC AATATTCCAG AAGTCATATT 4800  
TAAAGAATAT CTTTAGTGGA TTCAGCAGTT TTTCAAATAT GTACTTTTAT CTCTCCAACA 4860  
TTCATGATTG CAATTTTCA AATTAACCTC ATGATATAAA CAACTGTACT CTATGATGCC 4920  
TCATAGTACA GAACTGGAG GCAGAAAGAG AAGTTGAATG TCTAAGAATC GGTAATTCTA 4980  
AAACTCAACA TAGACCATTG AGCATTAGTG GTTCTAACAA TCCCACTGCA AAATGAGTTG 5040  
ATAATGTGTA AACTTTAGT GAACTAAAGC ATAAAGAACC ATGGTCTCCT AATGCAGCAA 5100

FIG. 6.2

ATTAAACAC ATGATAGCTA CAATTAATGA AGTACATAGT CCTGGCTGGG CACTATGGTA 5160  
CGTCCTTTAC ATAGATTATC TCTTAAATTA TTAACCCCGT TTTAGAGATG AGAACATTTCG 5220  
GGCTCAGGAA GGTTATGTAA GTTATATAAA AATCACAAAA TAAGAGACAG AGCTAAGATT 5280  
TGAATCCAAG TGTGACCAGG TTCATATCAA GCTTCCATTT TTGAATTTAT ATTAGAGGTC 5340  
AATAACTCAC CTTTGTCTTT TTAATAAT TTTTGGCTCT GTGACCTACA CAGGCAAGCT 5400  
GTTATTTACA AACAACCCAC ACATCTAGAT GGTCAGTGC TCACCGCCCA CTTTACCAT 5460  
CAGGACTCCT AGTGAGCTGT CAAGGGGAAT GCTATAATTT TGGAGGTTCT AAATCTGAGG 5520  
GCTTAAGAAA GAAAGAAATT GTAAAAAGCA GGCATTACTC AGGGGCATAG ATTGTCAGGC 5580  
AGATCTGTCA TGCTTATAGG TAACCTCCCA GGGCCAAAAA TATATGTGCC CAACTGCCT 5640  
AAATATTTCC TGTCACTTCA TAATACTGCC TGAATCCTG CCAAATTAGA ACTTCATTTG 5700  
TGTTGCTTGT CAATTTTAA CGCATAAGCA AATCACCTGG AGATCTTGT AAAATGCAAA 5760  
TTCTGATTAG GTTAGGTCTG GGTCTGCATG TCTGATATGC TTCCAGAGGG CACTGATGCT 5820  
GCTGGTCCAT GGACCACACT TAAAGAAGCA AAAAGATGT CTGATATTTA CTCTCTGGCT 5880  
GCCTAGGAGT GCTTCTCATT TAAGTGAGAT CTCTTGTGC ATCATAATGG GAGGGATGAG 5940  
CTGAAAAGCA GCAAATTAAG AGTGAGTTAA GTGTCTACCT CACTCCCTA CTATCTGTAA 6000  
CAAGCAGGTT TGGGCACTGT GGTCAACCAG AAAATTCTTT CCAGGACCAC AACCTTGAG 6060  
ATTATGTTGC AAAGATGCAA GGACAACTTA GAAATAATTT CCAGCACTGG TGGCACTGGA 6120  
TGTCTGTCAG TGGTGCTGGT GGCAGGGTCC TATTCAGACT GTGGTTTACC TGCCTGGCCC 6180  
GTTTGTTTAT GGGCCATTTT CTGAGTACCA TGGAGCATCG CCCAGCTGAC AAGGGCTTGT 6240  
ACTCCACCCT TGGTGCGCAG AAGGGAAGCT TGGCTGCTAC TAAGTTTGGT GCAAAGTAAT 6300  
TGTGGTTTTG CCATTAATAT TTGATACAGT GAGTCCCTAC TTTCTCAGG TGAAACTAGA 6360  
ACTTAAGGGG ACACGCTCAA GTTCTCATT TACAGTACTA AGTTTCAAAA ATCAGCAATT 6420  
TTATCAAACA CATGCTCTAC AGCAGTGGTC GGCAAACTTT TTCTGTAAGG GGCCAGAGAG 6480  
TAAATGTTTT AGAGTTTCTG GGCCACATAT GGTTCCTGTT CCAGCTATAA ACTCTGCCAC 6540  
TGTAGGGCAA AAGCAACCCT CCACAATACA TACATGAATA GGTGTGTTCC AAAAAAATT 6600  
TATTTGTGGA CCTGAAATT TGAATTTTCA AAACCTTTTCA TGTGTCATGA AATATTCTTT 6660  
TGATTTTTTC CCAACCTTTT AAAGATGTAA CAACCATTTT TAGCCTGTAG GCCATATAGA 6720  
AACAGGCAGT GGGCTGGGTT TGCTGACCCT TGCTCTGAAG CAATGATATC TCGATCCAAT 6780  
TTATACCCAC AAATTTTCT CTTGAAACC ATGCATTTAA TTCTCATCTC TTCTTACCAT 6840  
GACAATAAGA AGTTATTCTA TATAACAAAG AGATTGTACC CACCCAAGCC AGCATTTAGA 6900  
TCATGTCATT TGCTTCTCA AAATTTTGGT CTTTATAAAA ATCAATTAAA GCACCTTAAA 6960  
AGGTAAGCAG TGATGAAATA TTTGAAATAA TTGGCTAATT AAACATCACC TAAATAGAAA 7020  
CTGTGATAAG AACCACAAAT GCGAAAAGGA ATCATGTAGT AACTAATGTG GAGGATATCT 7080  
TGGTTTAGAG ATTTGATGAA CACGAGTTTT GATTTAAAAA AATTTGTGCA ATACTCACTG 7140  
CTTTGGTGGG GAGCTTGCTA TGCAAGTTGG TAGAAAAATT TATCCTAAAG TCACAGTTCT 7200  
CTACCACTCT GGATTTTCTC GAGCTAATA CCAATCCAAA CTATTTTAGG CACAGTTACT 7260  
AGTTTCAAGA ATCAGGCAAA TTGCCCTGGT ATTAGCACTG TTCTTTCTGT GGTCAACAAGT 7320  
CAAATACTG TGGTGAATAA AATTAGATGA TTTCTTTAGT CTTTCTTTT TCAGCCCCTG 7380  
TAGTCAATTT CCAGTGCTCC ATTCAAAGAA AAACCAAAAA TGTCCAGAAT ATAACCTTAT 7440  
TTTAAACTT GTTAACCACT GATTTCACTT GTTAACCAAA TTTTTTTTTT TTTTTTTTG 7500  
AGAATGAATC TCACTCTGTC ACCAGGCTGG AGTGCACTGG CATGATCTTG GTTCACTGCA 7560  
ACCTCCGCCT CTGGGTAAGT GGTTCAGCA ATTCTCTGC CTCAGTCTCC CGAGTAGCTG 7620  
GGATTACAGG TGTGCACCCC CACACCCAGC TAATTTTTTT GACTTTTAG TAGAGATGGG 7680  
GTTTCACCAT GTTGGCCGGG CTAGTCTTAA ACTCCTGACC TCGTGATCCG CCCGCCTCGG 7740

FIG. 6.3

CCTCCCAAAG TGCTGGGATT GCAGGCATGA ACCACTGCGC CCAGCCTGTT AACCAAATTT 7800  
CTAATCACAC AACTTTGAGG CCCAGTAAAT GCCTGCTGAA AAGAGGGTGC TGGTGGTGAG 7860  
GCAACTGAGG GGCTAACATA CTGATAGCTG CTGAAATCTT CTACAGCTCT TTCTTGTTAG 7920  
AACACTCCAT CACGGCTCCC AGGCCACAC CACATGAAGG AACTTCTAGC TCTCTTGCTT 7980  
GCTCTTTACC CAAATGTAGT TAGCAAGTCC TGGGAAGTAA ACAGCATTGA CAACTTGAA 8040  
GAAGACAATT AGGCAAATCC CAACTGCTGT GCTCCTGCAG CTAAAGATGA AGACTCGTCC 8100  
ATTGGGCAGT TGATTAATTG TACCTAGAAA ATTAATTTCA ATGGTCCCAT GACAACATAC 8160  
GGGCAGTGAA GCTCTAGTGT TCCCCCTGGG TGGAACTTC CAGGATGTAT AGTCTCCCAT 8220  
ACCAGCTCAT CCTCCCATTT TTCCAGATTC TGGTTCTTCT CTCTTACCTA GTGTGTAGTG 8280  
GGCCAAATGG TGGTCCCCCA AAAAGATATG TCCATGTGTT AACCTGGAA ACTGTGGATG 8340  
TAACCTTATT TGGAAAAATG GGGCCAGGTG CAGTGGTGTG CATGTGTAGT CCCAGAACTT 8400  
TGAGAAAGCA AGGTGGGAGA ATCGTTGGAG CCCAGGAGTT CAAGAACAGC CCAGGCAACA 8460  
TATTGAGACC CCCGTCTCTA TAAGCAATAA AAAATTAGCT AGGTGTGGTG GCATGCACCT 8520  
GAAGTTCCAG CTAATTGAGA GGCTGAGGCA GAAGGACTGC TCAAGCCCAA GGAGTTCAAG 8580  
GCTGCAGTGA GCTATGATCA TGTCACCCCA CTCCAGCCTG GGTGACAGAG TCAGACTCCC 8640  
TGCTCAGGA GAAAAGAAAA AAAGGTCTTT GTAAATGTAA TAAAGAATCT TGAGATAAGA 8700  
TCATCCTGAT TTAGGATGGA CCTAAATCC AATGACATTT GTCCTTACAA AAGAAAGGTA 8760  
GAGGGAAGTG TGAGACAGAC ACAGAGGGGA GGGCCTTG TG AAGCAGGAAG CATAGATGCA 8820  
GTTACAAGTC AAGGAATGCC AAGGACTGTC TACAACCAGA AGCCAGGAGA GATGCATGGG 8880  
ATGATTTCTC CCTCACAGCC TCCAGAACTT CTGGCCTCCA GGACTGTGAA GAATCAATTT 8940  
CTGTTGTTTT AAGCCACCAA GTTTGTGTGT CATTTGTTAT GGCAATGGCA GTATTAGGAC 9000  
TCTAATACAC AGTATAAAAA AATAAAAAATA GGGCCAGGCG TGGTGGCTCA GACCTATAAC 9060  
CCCAGCACTT TGGGAGGCTA AGGCGGGGAG ATCACTTGAG GTCAGGAGTT TGAGACCAAC 9120  
CAGGCCAACA TGGTGAAACC CCATCTCTAT TAAAAATAAA AATTAGTTGG GCATGGTGGT 9180  
GTGCATCTGT AATCCCAGTT ACTCAGGAGG CTGAGGCAGA AGAATCGCTT GAACCCAGGA 9240  
AGTGAGAGTT GTAGTGAATG CCACTGCACT CCAGCCTGGG TGACAGAGCT AGACTCCTTC 9300  
ATCCTAGGAC ACAGCCAAAGT CTTACGTAGC AAAAAGAAGT TGTTAAAGGT CTGTAGTTCT 9360  
GCATTAAGCA ACACAGGCAT GTACCTATGA ATTATATGAT TATAAAAGTG CTCGGACAGG 9420  
CCCATTTCAA ACTTGGCCTC TTTCCACCAA CTGTGTACTG TTTCTCATT CATACTAGA 9480  
GATTATGTCT TTATATCCTG TCAAAAAAGT GAATTTTGT GGGCTAAGAC ATTATCCCTG 9540  
TGTTAAATGC ACCAGTCTTA GTGTAAACAA GCCTAGTTCC TTTTTCATTT TGGCTGTCTA 9600  
GTATGCATTT GTATATGCTA GGCAGTGTAC TAGGCACCTT AAATACATTA CCTTGTTTAA 9660  
CCTCTACAGG ATTCTGGGAG GTAGGCATTA TCCCCATTT ATAGATGAGA AACTGAGAA 9720  
GACAATGTTT ATAAGTGCGT CACTTGTCTG AGATGACATA TTTACTAAGT AGCAGAACCA 9780  
GGCCTCGAGC TACTCAGTCT GATTTCCAAA GCCCCTGCTC TTAATCACAT CAACTTCTTT 9840  
CCTATATCAC CTTTCCAGAG GTGCGCTCTC ATGGATAAAG AGCAGAAAGTA TAAGTTACTA 9900  
GGCAGCAGAA AACTGTAGAG GTGGGAAGAT TAGATAAAAA ATGTAAATAA GAAGGCTTTA 9960  
AGACACCAAA ATCAAATGTA AATACTTTAT AACCTGAATC AGTGCTTGTG TTCATGAGGC 10020  
TAGAGGTCGT GCATTTTATC TCTAGGTCTG GTGATGCCAA TCCTGATCTA CAGCCAGCAG 10080  
CAACAGTTCC CTAGCCTGCC TAGAAGTTTG TAAATGCATG GGCTTTGGTA GGAGGAAGAC 10140  
GAGAGAAAAGC AGAACAGATT ATTACAAACC CAGTGCATTC CCCCTTGATG GGTCAACAGC 10200  
GATTTCTTTG TAAGTGAAGG ACAGCACACT GGTTTTGATG ACTCACGAGA GAGTAGGAGG 10260  
GAAAAAGAAG TCTGAGGCAT TGCCTGGAAG CTCGCTCTG CTTAACAAG TACACTAATG 10320  
GCTCATGCCT GTTACTCCCA GCACTTTGGA AGGCCAAGAT GGGTGGATCA CTTGAGGCCA 10380

FIG. 6.4

GGAGTTTAAG CCCAGCCTGG TCAACATAGC GAGACCTTTT CTCTATTAAG AATAAAGAAG 10440  
AAAGAAAGTA ATAATGATTG AAGTTCTCAT TCTCTACAAA ATTCACCTAT GACTTTCCAA 10500  
ATGCTAGTGA AAACTTTTAG GTATTGCAAA ACTGCCTTAA TGCATAACGG GATTCTCATT 10560  
TTACTTAGTC TAAGATGACT TTTTCACTTT GAACCTCTGC ATCTTTATGA TCGCTTAGCT 10620  
TTCTGACAAG CAATTTGAGT AAGTGTTTAT CAATTTGCAT CCACACGCTG ACACATAGGG 10680  
GTCTACTTAC ATATCCTTCA TGTAATTGAG CTTTTGTAAA TCATCTTTCT ACATGGTACA 10740  
CTTCTGATTT TGTGTGCAGC TTTCTTGTTT AAGCACTGTA TTAATGCTC TGCTTCTAC 10800  
ACCCTTAGGA ACAATGAGAA TAAAAGCGTA ATGTTGGTTA CTCTTCATA TCAAAGGAAG 10860  
TTCATCTCCT GGTTATTAAG AGCTATTATT AAATGGCCAT CTTTTGTGC CCCTGTGTTA 10920  
AGCACTCTAC CAAGATACCA TTAATAGAT AAGGGCCACA CTCCATAGAG ATGATGGTTC 10980  
TATATTCTGT ATTTCTGGG GGAGTTCTAA TTTTCATGCAA TTCCTTCTTC TTAATAAAG 11040  
GCAATTCTCT AAATATATTA CCTAATGTGC TTTCACTTTT ATATTCTGT AAGATTTTTC 11100  
ACATAAATCA ATTCTCAAAA AATAGTATCA TAGGCCTTTT AAAAATAGTC ATGTTCAAAA 11160  
GTCAGGCTCA TGAATAAATG TGTGCATTCA TTACATATAT TTTCAATAAT TCAAATTTAA 11220  
AAGAATAAGA GTAGCTAGAA GGTGGAAGAA AAATCTTATT CTGATTAGGA ATGCACAATC 11280  
ACAAGAAAAT TTGTGATATA TATAGTCATT TTATTCTGTA TTGTTTTATT TTGATTTTGG 11340  
TAAGACAAGA AACAATGTAG AAAGTTTGAC AACTTAAAAA AGTAATATGA GTGTGAGAAA 11400  
GTCCTCTTCC AGGATTAGCA AAAAAATGGT TTTTTTTTTT TTTTTTCCG AGATGGAGTC 11460  
TCGCTCTCTC GCCCAGGCTG GAGTGCACTG GCGCAATCTT GGCTCACTGC AACCTCCGCC 11520  
TCCCGGGTTC AGGTGATTCT CTTGCCTCAG CCTCCCAAGT AGCTGGGACT ACAGGCATGT 11580  
GCCACCATGC CCGGCTAATT TTTTTATTT TTAGTAGAGA CGGGGTTTCA CCATGCTGGC 11640  
CAGGCTGGTC TTGAACCTCT GACCTTGTA TCTGCCGCC TTAGCCTCCC AAAGTGCTGG 11700  
GATTACAGGC GTGAGCCACC GTACCCAGCC TAAATGGCCA AGTTTTATTA TGGACAATTA 11760  
AGCTGTAGAA TAAAAATCTA CTTTTAATAG CTGGCATAGT GCCTAGTGGT TTTGAAGCCA 11820  
CAAGCAGGTT TACAAAAAAC ATTTAAATCC ATCTGAATCT ACAGAAAACT AAGATTACCT 11880  
AAGCAGAAAA TGAATAATAG TCAGGATTAA GGAAGATTAA CAAATGAAGA GTATATGTAT 11940  
TTTAGAAGTA TTACTTTATA TTTTATAGT ATAATAATAA TATTTACGTT CCTACACTTA 12000  
TAATGAGTTT CGTATATATA TAAAAAAT TTAATGGATT AGTATGTTTA TATTTGCTTT 12060  
TAGTAAATTT GGTGTATGAT AAACCTCAGT GTCTACATTG TGAGACTACA CCTGAGGCAA 12120  
TTTCTGTGTT GATATATACC TGAATAGCAG ATATTACTTG GGAGCAAATA AAATAGCTTC 12180  
AGGCCTAATT TTGCAAGTTC ATGATGGGAG AGTAAGCATG ACTTCAAAGA ACTGACTTTG 12240  
AGTTAAACT TGAAGAATGA ATGTGACAAC AGCAAGTATA AAACAATGCC AGGCAGAGGT 12300  
GGGACTGTTC ATGGGTATCA GGGTAAGTGT GTTGATAAAT GCTCAAAGTA GGAAATACCT 12360  
TTCTTCCCC ACACATGTCA GAAAATAACT GCAATAGAAT GCAACGACAT CTCAGAGATA 12420  
AAGTGTTCAA CTTAGCTCTC AGAGACCGTT CAGTTACATT TTGTAATGAC ATTGGAATTG 12480  
ATTGCATTTT GAAGGCAATT CTAAATGCAA AGTCTTCATT TTGTTGATAG AAGCTGGGTT 12540  
ATTTATTATG AAATTTCAA AATTAAGTAA AATATCTAAT TAGGATTATA CCAGCAAAGG 12600  
CAAATTTAGA ATTCAAGACT TCATGATCCA TGGTAAGATT ATTTAATGC AACTCTGCTA 12660  
ATTAAGTAA ATTTCTTTA ACTCTCATAT CTGCCTTTTA CTTCTTAAGA CATTTTCTA 12720  
GTATTTCAAC AGAGCAAGAT ATCAGAAGGG TAAATCTCTT ACCAATGAAC TTTGCTAATT 12780  
CTTAGTGAAT CCGTTGACCC TGGTGAAGG ATCAGGAACA AAGTGAATGA AATACATTTT 12840  
AATACATTTT TGCTTTCTCT AATTCCAAAG ACCACTCTAA AGAATAAGTT ATTTGTGGGT 12900  
ATTATCTGAA ACTTGGGATT AAAAGAGACC GTGATTACCC TTCAGGGATT TTGGCAAAAC 12960  
TTAAGCCATT TCATCTGAAG AGCAAAGCAA GCCTCCACA CTCTGGCTT ATTCTCACAA 13020

FIG. 6.5

TTATCTAGAT ATCTAGCAAC AAAACTCTTG AGTAGTTTGT TAACTACAGA TGCCAAGGGC 13080  
TGACAGTTTC ACTTTCAGTT TTCAGAATAT CTTTTGTTTC AGTGGTGTA GCACACCATC 13140  
AGAATCTCTA CTATTTAAAA TAATTAAGTT ATAATTGTAA CTTCCATTAG ATGTAGTACT 13200  
TAAAGGAATC TAGAAGACAC AACTCATTA TTATAGGAAT TTGACTGCAA ATTCTTCTGG 13260  
GGGGTCTGAA TTGCAAAGGA GGCATCTTTG TAAGTCAGAC TCAACTCATT ACTCTGTGAT 13320  
GCAGGCTCCT CCAAATGGCA GCAGAAACGT ATTACTCTCT AGAAACACTA CAGTAGTGCT 13380  
ACAATTTTCA GGTTCGTAG AGATAAGGAC AAATTGACAG AAACACATTC TTAGAAGGAC 13440  
AGTATCATTT AAAATAAAAA TACTGTCATA ATTGTACACC AGGATAGCTT CTCCATAATA 13500  
AATTCTTTAT GATTTTCTGA TTTTGTAGAA TCAGAATTGA ACTTTTAAAT GTGAAAAAAA 13560  
TGAGAGAATT GTTCAAAT AGGACCACAT TTCTGTGTAT AATTTTAAAA GTTTAAAAAT 13620  
ATTTGATTAG TAGACTGATA AACTGAAACA TTTTGTAGAA GCTTTTCATT ACATACAAAC 13680  
CATATAATTT GTAAAAAATT GGAAATTATT CAAAACCTCA CATAACTAAA GTGACCAAAT 13740  
AAATACTGGA GAGGAAAGAA AAGGAGTCAA ATGAATCTAG CATTTTCTTT TTTTTTTTTT 13800  
TTTTGGAGAA AGGGTCTCAC TGTGCCACCC AGGTGGGAGT GCAATGGCAC GATCATGGCT 13860  
CACTGCAGCC TCAACTTTAT GGGCTTAGGT GATCCTCCCA CCTCGGCCTC CCAAGTAGCA 13920  
GGGACTACAG GCATGCGCCA ACACGTCCAG CTAATTTTTT TGGTATTTTT TGCAGAGACG 13980  
AGGTTTCACC AGGTTGCCGT GGCTGATCTG GAACTCCTGG TCTCAAGTGA TCTACCCAAC 14040  
TCAGCCTCCC AAAGTGCTGG GATTACAGGC GTGAGCCACC GCACCCGGCC TAATCTAGCA 14100  
TTTTCTAAAA GGAAGGACCC AGCAGTGAAC GGCAATATCA ATAATCATGT TCAAGACTAT 14160  
CAGACATGCA AGCTGGGGAT GAATGGGTGG AAGGGGAAAA TGATGAATAA ATGATGAACA 14220  
CAAGTATAGA CCCAGTGGAT TTGAGATGCC CAAGATGCCA GTGAGATATT CAAAGTTTAA 14280  
CTCAAAGCC ACTTCCCATA TGAAATCCTG ACAAACACTC CTACGTCCAA CTGGAATTAA 14340  
TTTCTCTTCT GGGCTCCAC AGCACTCTGT ATTTTCTAA TAGCATAACA CTATTTTGTT 14400  
TGTAGATATT TCTCTGATAG CATTACTATC TTTCTCTTT ATCACAACCTG TTTGAAGTTC 14460  
TTTTGCCTCT TGCATCCACT GTTGCCCAAT CCCACTGCTG GAAGGCTCAT CTTATTAAGT 14520  
TCTGTATTCC TAGTGCTAAC AACTGTCTA CCATAGATGA TGTTCATAA ATGGTTGCTA 14580  
AATGAATTCT CTTGTGATA TAGCACTATG GCAACATAAT CGACGGTAAA AATTTCTTCT 14640  
CAATGTTTAC TTTTAGCAGA ATGCATTCAT TTATCAACTT TCATTGAGAA TATGCTAATT 14700  
TCCATGACCC TGCTAGGAAA TAGGAAAATA AAGATGAATG TAATAAGGTG CTCATTCTAC 14760  
TGAAAGTCTT GACTAGTGGA GAATTATGGA TCCAACTTTT CATGAAATGC CTTCACTGGT 14820  
AAGAATTCTC ATATTTGGAA TAAAAAATGT TATGGGTGT GCCAAGATAC CTACATACTT 14880  
CATAATTTTG TAGAGGGCTG TCCTTACTGC AGAAATGTAT ACTACTATAG TCATATGTGG 14940  
AAATTCCTTT TATGATGCTA ACTGCATGCT AACCAGACTT TTTAATTTAA TACTTGCATT 15000  
AAATAAACCA TGCTAGGAAT CCAGGAATCT AGCTTGGTTT ATTTTCCATA CAATGTACTC 15060  
TTTGTAATAT GCATATACTA CATAAAAATT CTATTAATGG CCTCGTACTA AAGATGTGTC 15120  
TGTTGGGGAA TCAGTTATTC TGTATAATTT TATCTTAATT GATATATTAA AATCTACCAA 15180  
AAATATAAAC TCCGAGTAAA AGTATCTGCA TGGTGTGCAT ATGTTTATTA TTTTAAGTGT 15240  
CAGCGTATAC ATTTTCATGC CATAAAGTTA TAAATGAAA AAATAGTAGC CTTTTATATT 15300  
AAGTTCATGC TTATGTAGTT AGTAAAAACA AGAAAGCAAT TAACATACAA ACCATGATGG 15360  
TGGTTAAACT TGCTTCAGTT TGTGTTTTTT AAAATTTGAA AGTGAGAAAT ACAGCTCGAA 15420  
GTCAGCTCAT ATTTTCAGTA AGTACTGATG AGGATGTACT GGCCCTATTG ACTACGCTGA 15480  
CCCCATTAAT ATATTTGTGA GTCTAAAGGT TCATATGACG CTGTTCCCTC ACTCTAGCAA 15540  
CAGGCCATAC ATGTCTTACA TAGGGACTCT GTTCAATTCA TTAATACCTC CTGAAGTGCT 15600  
CAACATCGTG GTTCATTTAT AGTAGATACT CAATACATAC TCCATTAAT GAATTCTAAG 15660

FIG. 6.6



ATAAACTGTC TGTTACTGAC AGAAATTTTC ACTTAAGGGA GTCTCCGTGG CTGAAGGCAA 15720  
TTTTGAAATC CTGTAAAAGA ACCCACTCCT CTCCCCAAGT AATGAAGTTT GTCAGTTTCA 15780  
AGCCTGTAAT AAGGTACTGA CTTAAAAATTA ATTTTCTAAT AATACAGTAC TGCTATGTAT 15840  
CTAATGTGGG GTTAGTCAAT GATAGGAAAA AAACATAAGA CAGAGTCACA TTAAAAATG 15900  
TGTGCTTAGG TGCATGGTGA CACCTGCCTG TAGTCCAGCT ATTCCAGGGG CTGAGGCAGG 15960  
AAGATCCCTT GAGCTCACGA GTTTGAGGCT GCAGTAAGCC ACTGCACTCA GCCTGGGCAA 16020  
CAGAGTGAGA CCCTGTCTCT AAAAAAAATT CGTTTTAAGT GTGCTCAGGA CATAACAGGA 16080  
GCCGCTGGTA ACATGCCATT TCCACTGTGA ATATGGTAAG GACAGAATCC CTGTCTCTAG 16140  
GCCCTCTTCC ACTAGTCAAT CTCATCATCA CCATCAAGGC CAACATTGGT ATTCTCTCCT 16200  
CTGAGACAAA GTCTTTGACA TTTTCTATAC TATACTATGT CTTCCTCTCC CCAATGCAT 16260  
ATACAAATAA AATTTGAATG CTTCTTCTC CATTTAGTGT AATTTTTTTT ATAACATAGA 16320  
CCCAATTTTC AAACCCCAACA ATGGTGGATT TTATTTGATG TATTGTAAAA AGCGCTGGAT 16380  
TGAAGTCAAA TGGCTTGGA GACCTAAATT CTA CTCTGC CTGTACCATG AAAGAGACAA 16440  
ATCCCAAGGC TTTGCAGGGC TTCAGCTTCC TTGTTTGTAG AATAAAGAAT TATAAATCA 16500  
TCTCTTTTGG TCCTACTGGG CAATAAAAAG CTATGATTCT AAGCCTGTTC CCTTTTCTCA 16560  
CCTAAGAATA CAAATTTGAT ACAAAGAGGC CGCAGAATGT GTCAAACACT CCCTGTTGCC 16620  
TGGAATTCTC TCTTCCTTG GGTTCAGGGA TAAAGGTATG TTATTTCTTA AGTCTCCCTT 16680  
TGCTTTCTTC TGCTTGCTC GTAAATATT TTCCATCTTG GCAGTCCCTAC ATGTCTTCTC 16740  
ACTCTACATG TTTTCCCTAG GTGATGTGAC CCAGCCTGTG GCTTCCACTG CCATCCACAC 16800  
ACGTCGCTGC CTCTCTCCAC ATCAGCATCG CAACTATCTC CTGGAAGCTT TCCAAGTGCT 16860  
GAACTACAGT AACCTCAACC GAACTGCTGT TCATTACCC CACAGGCTTG CCCCTCCTCT 16920  
GCATCTTTGT GAGAACCTGA GAGTCATCCT AAACCTCTCC TTCCACCTCA CTCCCCACAT 16980  
CAAATCGATT ACCAACTTGT GCTGATTTTA TCTTCAAATA CTCTCCAGAA TTGTCGCTGT 17040  
CATGGACTGA ATATTTGTGT TCCCCCAAAT TCATATGTCC TAATCCCTGA TGTGACTGTA 17100  
TTTAGAGACG TGACCTCTAA GGAGTAATTA AGGTTCAAGT AGGTCAAAGG TGGAGCCCTG 17160  
ATCTGATAGG ATCAGTGTCC TTATAAGAAG AGACTAGAGC TGGGCACAGG GGCTCACACC 17220  
TGTAATCCCA GTATTTTGGG AGGCTGAGGT GGGAAGATCA CTCAAGGAGA GGAGTCTGAG 17280  
ACCAGCCTGG GCAACAGAGT GAGACTCCAT CTCTACAAGA AAATAAAATA GTCAGACACA 17340  
GTGGTACACA CCTGTGGTCC CAGCTCCTCA GGAGGCTGAG GCAGGAGGAT GGCTTGAGCC 17400  
CAGGAATTTG AGGCTGCAGC AAGCTATGAT CACACCTCTG CACTCCAGCC TGGGTGACAG 17460  
CATGAGACCC AGTCTCTTTA AAAAAAAAAA AAAAAAAGGC CATATATAGC CCAGAAGAGC 17520  
GTCCTACCA AAACCCAATC CTGATAGCAC CTGGAGGACT TCCAGCCTCC AGAGCTGTGA 17580  
GAAAATTTCT GTTGCTTGCA CCGCCAGTC TGTGGTATTT TGCTGTGGCA GCCCAAGCTG 17640  
ACTCATCAGT GACCTTCTCT CTGTTACCGC AGAGTAGCTC ATCATCCTCT CTTCCCTAGA 17700  
GTCCAGCCAC TCTCTACAT CTACCTACCT AGCAGTATCA CTGTGGGTTA GAGTCAGATC 17760  
ACTGCGGATT AAGTCCTCAT TCTGCCACTG CCTGTGTAAT TCTGAGCAAG TTA CTTAATC 17820  
TCTCTGTGTG TCAGTAACCT CCCTGTGAAA TGAGGCTAAT AATAGCAGGG TTGTTTCAAC 17880  
AAGGCGATAC ATGCATAATG CTTACAACAC AGCTTGGCAC ATTATAAGCA TTCAACGAAA 17940  
AGTGAGCTAC TATTATCTCA TCCGTTATCA GAATAAACCA CCTAAGCCAC AAGGCTGCCC 18000  
ACATCATCCT CATGTTTTAA AACACTTCAG TGGGCTCCCC ACCATCAACA GGATAAAGTC 18060  
CAAGCTTCCT TAGCATTTCT TAGAGGCTCC ATATGAATCC CCAAGTTCCA CTACAGGAAC 18120  
ACAGGTGAAC TTTCCACTCC AACCTCAGGC TCCTTCGTGT CACTCCTCAT CCACATGGAG 18180  
GTAAGCAGCA AGAGACTCCG TGCAGTTCCT GGTGGTTCCC TGACCCTCAG GCAGACTCTC 18240  
CCCAGCCCTC TGCCTGCAAC GTCCTTGCCC TTTGCTTCCC TTGGCCAGCT CCCATTCAAT 18300

FIG. 6.7

CTCCTTGATT CTGCTTGGAA GTTCCCTCT CAGGAAGGCT TTATGAACCT TAGTGTAGGT 18360  
TATGAACCCA TCTTTGCTCC TTTCATACCT TTTGCAAGCC TTTATTTATT ATGACACTTA 18420  
ACCATTATCA TACTGAAGTG ACCTGTTGGT GTGTCTTTGT TCCCCACTAG ACAGAAAACCT 18480  
CAAGATCAGA GACCAGTTCT TGTCTTTTT TTTTTTTTTT TTTTTTTTTT TTGTATCACA 18540  
GTGTTTAGCA GCCTGCTATA TGGTAAATGT CAGTAAATGT TCCACAACT GAATGGAATT 18600  
GAGCTCTGGA ATCTAGACCA TCTTTTCCAT ACCCATCACT CCTGTCTTAG TTGAAGTCCT 18660  
TATTTCCCAT TTGAAGCAAT GCAAAGGATT TCCTAATCT AATCTCTCTT TTCTTCACAC 18720  
CATCCTTTAA ACAGCCGACA GAATGGTCAT CCTAAAGCAC ATATATCCTA TCTTACATAT 18780  
CCTAGATTCG GAACCTCTCT GGGCTTCTCA CCATATAAGA AGAAAGTCTA ACCTCCTTAG 18840  
CAAGGTGCAT AGGTCTTCAA TGGGCTCCAC CTCACCTCTC TATATATACC TATACTCTTG 18900  
CTACACTAAA CTTCTTTCTT ACTGTTGCTG GAACAAGTTC AACGCTTTCA AACCTCCCTG 18960  
ACTTTGCATA TGCAGTTCAT TCTGTCAGGA ATGCCCTTCT CTCTTATGCC TGGGATATTC 19020  
TCATTCATTC CATATGACCT ATTCATAAG TCACTCCTTA ATGAAGCCTT TCTTAGATAT 19080  
CCACTGGGGC AATCAGCTGC TTGCTCCTGT TTCCACAGCA CATTGTTTAC ACAGATAGCA 19140  
CAGGACTTAC CACAAGTTAT TATAATTTTG TCTGTCTTGC CCATTGAAT CCAAGGGCAA 19200  
GGACGGAATC ATTCTCATCT TTGTATGTCC TGGGAAGTAG AACTGTACCT GAGACATAAT 19260  
AAACACTTGA TATGTTTGTA ATTTTAAAT AAGTTAATGA ACGGAATGGC TAGAAAAAGT 19320  
GAGAAGAAAC TCTGGCTTAC TGTATATCAT ACTGTCATAC TAAAAATATA TACTGAAGAC 19380  
AGAATCACAT TATATCATCA CTTTTCACGC TATAGGCCAT GATCCATTAT GAAAAAGAGG 19440  
ATAGTAAAAA AATCACAGGG CACAATTTTT GTTTCTGTCA CACACATGTG TACCTGTATA 19500  
TTGGACTGGA ATGTAAAACG CATGTTCCAT TGTAAGACGT GGTTTTAAAA GAGGCTTGGA 19560  
AAACACTGCA TATGGTCATT TCTTAGTTTA GTACAATTTA TTATTTTCGT AATAACCTCA 19620  
GCTATAATAT AAGTCTACCA TGAAGCATTT TGGGGAGATT AAATGAGATG TGAAAAGTAA 19680  
ATGTGTTAGA TAGACTGAAT TCATATCATA GCTTGCTCTG ATACTTTACA AAACATTTAA 19740  
CCTTACCCAC AAGTTTTAGT TTCCTCACTA AAGTCACCCT GAGGACAGTA ATGGGATCTT 19800  
CCTCACAGAG TATTGTGAGG AATACATAAG AGAACGTACG TAAATGCCTG GCACTTAGTA 19860  
TTTATTCAAT AAATCTTAGC AATGATGATG ATAACAACAT GGTACCTGGC ACATAAGAGA 19920  
GTAAAAAATT AGTTTCTTCA GTCAAATGTG CTTACATTGA TAGTTGATAC TAACTGGGGT 19980  
TAAAAGGTCA TTGCTGGCAT CTCAGAAAGA TAGATTACAG TGAAATAAAA AATGACTACT 20040  
GCTTAAATG AATGAAGACT TATTTACAAA GTCATGTTCA TCTGGTACAA TAATGAAGTC 20100  
GCTCAATTGG GAGAAAATGA CAAATAATAC AAGTGAATAT ACAATCTTAC TTAAGACGAA 20160  
AGAAATAGGA CACCAGGCTA ACTATCAGTC TCCTAAACCA CAACTTTATT TCTGATACAA 20220  
AGAGACAGTG AGACAATCAG GGCTTCCCTC AAATAAATTA CTTAATCTCT CTTCAATTCA 20280  
GTTTTGCATC TGTAATATA AATACTACA ATTTACAGT ATTTCCATTT AAAAAGTTCT 20340  
AGTGCAACAT CAGAAACAAG AACTTAGTAG GTGTTCAAAA AGAAATATAA GTTCTGCTTT 20400  
GTTAGCCAGC AAATAGTTGC CTGTTTCTAG CCCTCACTTC TTTTCTCCTA AATCCCTATA 20460  
TTGCATTTAT TTAACCTAAA GTGCTGGATG TGGCACTACG AGAAAGAAAA AGATATTTGG 20520  
TAATCTTGTT AAAATCATTG GACATCCCAG GCTATCTGGA ATCACCTTGG GCTCACAGTT 20580  
AGACATCAGC TATGGCTTGT TTTATTTAAA AATTCATCCA CTGATGCATG ATAATGGAAT 20640  
TCACAGGAGA GCAATTTACC AAAAAAAGA AATTTATTGA TTTATAATGT GAGATATTAA 20700  
TTTAGCCACA AATATTTATT GAGCATCTCC TACATGCCAG GGAATGGACT ATATATGGCA 20760  
GGAAAAACAGA TACCAATCAT TTATATCAGG CATTTTTTTC TAATAGAAGG ATATTCGCAG 20820  
GAGACAATGC ATAGCACCAT GCCTTGACAG TAACAGACAT TTAATAACTA TTAGTTGAAT 20880  
AAAATTGGAG ACTAGAATGA TACATAAAGA GGCAAGAAAG AGCAAAGATA AGCCTTTCTG 20940

FIG. 6.8

AGAATTTCTA TCATGTTTTG CTCAATAGCT TGTCTTTATC CACTGCTTGT ATTTTTCCAT 21000  
GTAGCTAATC CTCATTGGTC GTTAGAATTG AGACACCCTT TCCTTGAAAT CAGGAGCTAT 21060  
AGGAGGCCAT TCTTCCTACT GGGCATTTC TTTCTGGGAC AGGGTCTCAC TCTGTCACCT 21120  
AGGCTGGAGT GCATCATAGC TCACTATAAC CTTGAAGTCC TGGGCTCAAG GAATCCTCTT 21180  
GCCAAAGAGG TGGGATTACA GGCATGAGTC ACCATGCCAG CCTATTTGGC ATTTCTACTG 21240  
TAGACAAAGC AGACTTACAG CAGTAGGTCT ACCTGCCTAA TACAAAAAGA AAAAAAGAA 21300  
TTTAAACAAA CAAATGAGGG AATCAGATCC AGAAAGTGAT TCTTATAACT TAGATTACTT 21360  
AGAGTAGATC TATAATCTGC TCTAGATCCA CTGCATACAG TGGGCCCTTC TTATCATATT 21420  
CCATAAATAG CACTTTTCTC AGCCCAGCTT TTGATGATAG CTGAACAGAC TAACAGTTTG 21480  
TCTAACAAAG GCTAGAGAAG GGGATAGCAA ATAATGGCCC ACAGGCTGAA TCCTGCCTGC 21540  
TGCTCATTTT TGCAAAGTTT TATTAGAATA CGGTCATTTC CACTCATTTT CACACTGTCA 21600  
ATGGCTGCTT TTGCGCTACA GCAGCAGAGC TGGGTGGTTG GGGCAGGGGT CACATGGCTA 21660  
ACAAAGACTA AAATACTTAT CATCTGACCT TTTACAGAAA GTTTGCTGAT CCTTGGAGTG 21720  
TACAAGTATT CTATATTGTT GATTAAGAAC AGAACCACAA GTATTAGAAG TTAGACCAGC 21780  
AGGTGGTAAA GCTGATCATC TACTAATATA ATGGAAATTG GGGTCCCAA TCAGGACTCT 21840  
TGCTTTGATA GAAGGCCATC TTAACGAGGA GGGAGACACC TGCAGGCAAA GTCAGAATTT 21900  
TCTGCAGGAA AAGTTTTGAG TCCATTTCCC CTGTGAAACA AGTGCTCAGC TATGCATTTT 21960  
ATCTTTAGTA ACCATGCTTC TATACCTGGT TCTCCTTGGC AAAGATTCTT TTCTTCAGTA 22020  
AGTCTCAAGA CTTTCTGGGA AGGTAGGGAG ATATGGGGGT AAAAGTGTC CAGGACTTAC 22080  
TGAAGGAAGT GTTTTATGAT TATCTGATAG AATCACTGTA TCATGGTAGA GAAGGCCAAC 22140  
AGAATATAAT CTGAAAATAG AGGTGAGGGT GAACAAATGG GCACTAAAAG TGAATCAGC 22200  
ATCAGGAAGG TAGCAAAACA AGACATCAGT CAAAGATATG GGGTGATTCA GACCTAAGGA 22260  
AGATTTAATG TGGGATGTTT CCGTGTGCCA GGAGCTGGAC ACTTAAGCAA GAGGAGATCC 22320  
AGGAATGTTG CTAAAACCAT GGCCTCCATA CTTTATTGGA ATTAGCACAA CTTATCCTTG 22380  
TTTCTTTCAT TTGCAATCA AAATCTTTAA AAACACATTA TTTAAAAATA CATTATTTTA 22440  
AAAGCTAGAA TGAAAATTAT GATATCATTT AGGTGGTTTA AAAACATCC ACCAGCCGGG 22500  
CGTGGTGGCT CATGCCTGTA ATCCCAGCAC TTTGGGAGTC CGAGGCGGGC AGATCACGAG 22560  
GTCAGGAGAT TGAGACCATC CTGGCTGACA CGGTGAAACC CCGTCTCCAC TAAAAATACA 22620  
AAAAATTAAC CGGGCGTGGT GCGGGTGCC TGTGGTCCCA GCTACTCGGG AGGCTGAGGC 22680  
CGGAGAATGG CATGAACCCG GGAGGTGGAG GTTGCAGTGA GCTGAGATCG TGCCACTGCA 22740  
CTCCAGCCTG GGTGACAGAG CAAGACTCCA TCTAAAAAAA AAAACAAAA ACCATCCACC 22800  
AAAAATGGAA GAAGTGATGA AAAATTACAG TCCAAGAAGA AGGGCCATAG CTGTTTAAAT 22860  
CAATTGGTAT ATTTGTTATC TAATATAACC CCACGTAACG ACAGGTATTT AACAAATGTT 22920  
TCTGCTGAAT TTGACGATTC CATTTCCCTT ACATCCCAT TGAATCCAT CAGCACCCCA 22980  
CATCCAACCC ATCAGTACAT CCTGTCAGCA TTGGCTCCCA AATATAACCT AAATCTAACA 23040  
CATATCCTAC TATCTCTGCT GCTACAACCT TAGTCTGAAA TCTCATAATC TCCCACTTGT 23100  
ACTACTGTAG ATGACTCTGA ATGAGTCTTC TTGCTTCCAT TCCACACAGC ATCCATACTG 23160  
ATCTATTTTT TTTTCAATT TTTGTAGAG ACGGGGTCTT GCCATGTTGC CCAGGCTGGT 23220  
CTTGAACCTC TGGCTTCAAG GGATCCTCCC ACCTCAACCT CCCAAAGTGA TAGGATTTCA 23280  
AGTATGAGCC ACTGTGCCTA ACCCTGACTG ATCTTTCTAA GCATAAATCT AATAATGCCC 23340  
CTTCCTTGAT TAAACCCTTC AATGAATTCA CATTAAAGCAA ACAACCTGGC CAGGTGTGAT 23400  
GGTTCATGCC TGTAATCTCA GCACTTTGGG AGACCAAGAT GGGAGGATCA CTTGAGGCCA 23460  
GGAGCTCAAC ATCAGCTTAG ACAACATGGT GAACTACAT CTCTACAAAA AATACAAGAA 23520  
TTAGCTGGGC ATGGTGGTGC ACCTATAGTC CCAGCTACTC GGGCGGCTGA GCTGGGAGGA 23580

FIG. 6.9

TCACCTTGAGC CCTGGAGGTC AAGGCAGCAG TGAGCTGTGA TTATGCCACT ACACTTCAGC 23640  
CTGGATGAAG TGAGACCTGG TCTCCAAAAA AAAAAAAAAA AAAAAAAGA AGCAGGGCAA 23700  
GGTGGCTCAC ACCTGTAATC CCATCACTTT GGGAGGCCAA GGCAGGCCTC CTGGATCATG 23760  
AGGTCAAGAG ATCGAGACCA TCCTGGCCAA CATGGTGAAA CCCCATCTCT ACTAAAAATA 23820  
CAAAAATTAG CTGGGCATGG TGGCATGCAC CTGTAGTCTC AGGTACTTGG GAGGCTGAGG 23880  
CAGGAGAATT GCTTGAACCC GGGAGGCGAA GGTTGCAGTG AGCCAAGATT GCCTGGTGAC 23940  
AGAGCGAGCG AGACTCTGTC TCAAAAAA AAAAAAAG AAAGAAAGAA AGAAAGAAAG 24000  
AAAGAAGAAA TCCTTAGTCC TGTCTTAAT ACTTGAGAGG CTGAGGGAGG AGGATCACTT 24060  
GAACCTAGGA ATTTGAGGCT CCAGTGAGCT ATGACAGCAC CACGGTGCTC TGGTCTGGAG 24120  
AGAGTGAGAC CTTGTCTCTA AAGAAGAGAA AAGAAAAGAA TGAATGAATG AACAAAAAGA 24180  
AAGAAGGAAA GGAAAAGAAG AGAGAGAGAG AGAGAGGAAG AAAGGAAGGA AGGAAACAAA 24240  
ATAAAATAAA ATAATAATA AATAAACCCA AATCCAACTT CTTTACCCTA ATCAACAAGG 24300  
CTCAAATAAT CTCATGCCAA CTAAGTCTCT GAACAGCTCC TTCCATTCTA TTGCCAGATT 24360  
ACTCCATCTT TCAGCCACAA GACCTTTTTA TCTTCTTTT ACCAGCCAAA CACAATCCTA 24420  
CCTCAGAACA TGTGCACTTT TTCTTTTCTC TGACTTGAAT CTCCTCCACC CATTATATAA 24480  
TCTTAGCTCA AAGAGGCTTT TCTTGACAAC TAGCGAAAG TATTTATCCC AGTCATTCTC 24540  
TGCTACATTA TTCCAATTTA TTTTCTCCAT AGTACATTTC AGCACATAAA GATTTCCTTA 24600  
GTATGTGCTT GTTGCCTTTC CCCAACCTCC TAAAATGTCA GCATTCCCTG AGGGCAGAGA 24660  
CTGTTTCATT CCTGTATCAT CAGCACCTAA GACAGTTCCT GGAACATACC AAGTACTTAA 24720  
TAAAAATTTG TTTATTGACT AGCTATGACA CATTTTACTT ATATAATTTC ATTTTCTCAG 24780  
CAAAATGAAC ACTTTGAAAT GTAATTAATT ACTGATTTTT GCAGTATTTT CTAATTATTT 24840  
AAATAAAATA TTTACTATTT TGGTCAACCA GAATTCCTTAC ATTGTTTTAG CACCCAGATA 24900  
GCTTCTAAAA ATGCTTACAA TTAACACAAT TTTATCTAGC AATATGTATT TATCACTAGA 24960  
CAGAATGCAC TGAACCTTC TTCATTAATA AAAAGCAATC CAGGCTGGGT GCAGTGGTTC 25020  
ACGCCTGTAA TCCTAGCATA GTGGAAGGCC GAGGAGGGAG GATCACTTGA TACCAGGAAT 25080  
TCGAGACCAG CCTGGCCAAC ATGGCAAAAC CCCATCTCTA TAAAAACAC AAAAATTAGC 25140  
TGGGTATAAT AGCAGACATC TATAGTCCCA GCTACTCAGG AGGCTGAGAG GTGGGAGGAC 25200  
TGCTTGACCC CAGGAGATTG AGGTTGCAGT GAGCCGTGAT TGTGTCACTG CACTCCAGCC 25260  
TGGGCTACAG AATGATACCT CATCTAAAAA AAAAAAAAAA TTAGCCAGGC ATGGTGGCAT 25320  
GCACCTGTAG TCCCAGCTAC TCAGGAGGCT AAGGTGGGAG GGTCACCTGA GCCTGGAAGG 25380  
TAGAGACTGC AGTGAGCCCT GGGTAGCCCG CGCCACTGCA CTCCAGCCCT GAGTGACAGA 25440  
GACCCAGTTT CAAAAAACA CAAAAACAG AAAACAAAAC AAACAAACAA AAAAACCCAA 25500  
TGCATTGCTG AAATGTAAA TCCATTATAA AGAAAAGTAC AGGGGTGGGC ATGGTGGTTC 25560  
ATGCTTGTA TCCCAGCACT TTGGGAGGCC AAGGTGGGCA GATCACTTAA GGTCAGGAAT 25620  
TCAAGAACAG CCTGGCTAAC ACAGTGAAAA ATGCAAAATA CAAAATAAGC CGGGAGTGGT 25680  
GGCGCATGCC TGTAATCCCA GCTACTCGGG AGGCTGAGGG GGGAGAATCG CTTGAACCTG 25740  
GGAGGTGGAG GTTGCAGTCA GCCAAGATCG AACTCCAGCC TGGGTAACAG AGACTCCATC 25800  
TCAAAAAA AAAGTAAAA GTATATAGTT GATTCTGCAG GGACTTAAAA AAGTATAAT 25860  
ATCTTTTTTA ACATCACAAA GCTCTGATAT CTGCAGGTTT ATGACTAACT ACTAGCTCAC 25920  
TCCCATGAAT ACACGTATGT AAACAGGCTC TATACAATCT ACAATCCCAG ACTAAGGGGA 25980  
AAAACTGTC CTGTCACTGT GGTCTCCAAC CTTTGGCCCA TTTCTTTCCT CTTGACCACA 26040  
AACTTCTCA GGAGTTGCTT GTTTCCTCTT GATCCACTTA TCTTAGCCC ACTCCAATCT 26100  
GGCATCGGTT CTCAGTACTC TCCACTAAAA CTGCTTTTAT GAAGGCCATC AATGACGTTT 26160  
ATGCTGCCAA ATCCAGCAGA CACCTCCTGT TTTCTAATTT TTTTATTGT TATTTTTTAA 26220

FIG. 6.10

GAGACTGGGT CTTGCTCTGT CACCCAGGCT GGAATGCAGT GATGCCATCA TAGCTCACTG 26280  
CAGCCTTAAC CTCCCTGAGT TCAAGAGATC CTTCTACCTC AGCTGGGACT ACAGGCATGC 26340  
ACAGCTATGC CTGGCTAATT ACTCAATCTT TAACATAGCT GATAATTCCC TCCTTGAAAC 26400  
ACTCTCAACT TTTAAGAAAC CCTGTTATTT TCCTCCTACA TTTTATAGCCA GTTCTTCTAT 26460  
CAGCTTCTCC TTATCTGACC TCTAAATGTT AAGAACATTA ACAAAGACTG AACCTAGTTT 26520  
TTTTCTCCCC TTA CTGACT GCTCCTGGGC GATGTCAATC AGTCCCATTG CTTTAGATAC 26580  
TATCTGTTGA AACACTGAAA TCACTGGTTT TTTTGTGTTT TTTTTTTTTT TTTTTTTTTT 26640  
TTGAGATGGA GTTTCGCTCT GTTGCCCAGG CTGGAGTGCA GTGGTGCAAT CTCGGCTCAC 26700  
TGCAAGTTC ACCTCCTGGG CTCAAGCAAT TTTCTGCCT CAGTCTCCCG AGTACTGGGA 26760  
TTACAGGTGT GTGCCACCAT ACCCAGCTAA TTTTCTATT TTAGTAGAGA TGGGGTTTCA 26820  
CCATGTGTCC AGGCTGGTCT TAAACTCCTG ACCTCAGGTG ATCTGCCAC CTTGGCCTCC 26880  
CAAAGTTGG GAAAAGATAT CCCAATCTT TTCCTATGAT TTCTTAATTG ATCTACTTGA 26940  
CATATCCACT TGGACTTTTA ATAGGCATCT CAAACTTAAT GTGTTCAAAA TAAACCTCGT 27000  
GACTTTCCT CCCAAACCTG TCCCTACCTC CCTCAATAAC TAATATTATC ATTCTTATAT 27060  
TCATATATTG AATAAATGTT TGTCCCCCA AGTATTTGTT GCTATAAATT TATGAAGAAT 27120  
TCTTTTCTCA CTAGTTATTA TAATTAATAA GTAATATTTA TTTTCTTTAA AAACCTTACT 27180  
TTGTAGGATT ATTATTTTTT AACACGGGAC CAACAATAAA TAACTTCTCT ACTTGATTAA 27240  
AACTAGGGCT TCCTCTGTG CTCCCTCAGG ACTATTTCTT TGTA AAAACA ATAGGCTAAA 27300  
TCAGTACTGG TGTC AAAGAA ATCATAATCT CACAACCTTA TAAATACAGC ATGTGGCAAG 27360  
GGATTTTCCC ATCTTATATA GTAATAAAAT TTTAGCTGT GCCATGGCTA AAAGTTTACC 27420  
ATCAAAGTTG GAATTTTAAA TTAGAGGTAG TCATCTTTCT TTCTTTTAA AGAAATGGAG 27480  
TCTCACTATG TTGCCAGGC TGGAGTGAG TGGCTATTTG CAGGCATGAC CACAGCACGC 27540  
TACAGCATCC TGGCCTCAAG CAATTCTCCT GCCTCAGCTT GCCAAGTAGC TGGGACTACA 27600  
GGTCCCTGCC ACCACACCCA GCAGAAATAT TTAGCTTTCT GAATTTCTCA AGTGTGTGTA 27660  
TGAATGAGAC TAGTGGGGTC CTTAACCAAG ATTCACAGGA TTTTAGTGA TTTATTAAAT 27720  
AACTGGATT TGTATCTACC AGCATGTTCT TTGAGGTACA GGTATGTCTT TTATATCTCC 27780  
TAATATAGTT CATTACAATG CTAATACTA AGATGTGATG CTCACACACT ACAGAATAGC 27840  
CAAGCAAATG AACTACTTAT TCTCATAGGG CTATTATAAT TAACAAATTC TTGTATCACC 27900  
CCATCATTAT CAACAACAAC ATGATAGGAT TTCCTTTTAT CTTGAAGAGT CTGGAAAAAG 27960  
GGTAACAGAG AGATATTTCT GAGGAACAAA CTGGTAATGA GGGAGCTACT GTGTCCATTA 28020  
CAATACTCCT TCTAGAAGCT CAATACATAA TGAATAATCT CTGGAAAAAA GCAAGTGTGA 28080  
GAATGGAAGG CTCTTCTTCA AACTATGCAA AATGAATCAA TCAGCAGTGA ACAAATTTAT 28140  
GAGCCAAACA AATTCCTACA AAAATTACCA TCATATGCTG TCATGCATGT CTGCCAGTCT 28200  
ATTTATCATA TTATTTAAGA AACAAACATT TATTGAAGAT TTATCATGTG CTCAGCACTG 28260  
CCAAAGAGGA AATAAAGAGC ATAATATCTA TTCTTAGAAA ATAACATTAA CACAAATAGA 28320  
AAACAAGAAA CCATAATGTT AAAAATATTA CATAGTAACA CAGAAAGACA ATGTATAATT 28380  
ATACATACGC ACTAAAGCAA AGATAACATA ATTTATAAAT TATGAGGTAC AGAATAGTTA 28440  
GATTCTGAAA ATTAAATAA TCAGGAAAAA CTTTCATGAAG ATGAGATCTG GGCTGGATCC 28500  
CAAAGGATAG GCAGGTGGAT CATGTAGAAC AGGGGAAAGG AGTTCCTGAT CGGGGATACA 28560  
ATATATGTAA AAACCTCGGAG ACAGGACTGA GCGTGAAATG TTAATGGGAC AGTAAAGAAA 28620  
TCTTCCTCTG CAGCGGGGGA AAAACAGAA TAATGGGAAA CTGCATGGTT AAAAGGTTTG 28680  
ATGTTAAGAT AGTGCTTGGG CACAAAAGAT CTAAAGTTG AGTCAAAAGA GTACAATGAA 28740  
AGCATTAGAA ATAGAAGATA AAACACAATT AGGCCGGGTG CAGCGGCTCA TGCCTGTAAT 28800  
CCCAGCACTT TGGGAGGCCA AGGTGGGTAG ATCACTTGAG GTCAAGAGTT TGAGACCAGC 28860

FIG. 6.11

CTGGCCAACA TGGTGAAACC CCGTCTCTAC TAAAAATACA GAAATTAGCC GTGAATGATG 28920  
GCTCGTGCCT GTAGTCCCAG CTATTTGGGA GGCTGAGGCA GGAGACTCGC TTGAATCTGG 28980  
GAGGCGGAGG TTGCAGTGAG CCGACATCGC GCCACTGCAC TCCAGCCTGG GTGACAGAGC 29040  
AAGCCTCTGT TAAAAAAAAA ACGGTAAAAA TAAATAACAT TTAATTTGT TTTCTGATGA 29100  
TATATATGGC CTCTAATTGT AAAGCTGAAT GCCTAGTTTA CCACTTTTTT TTTTTTTTGT 29160  
AGACGGAGTC TTGCTCTTGT TGCCCAGGCT GGAGGGCAAT GGCACGATCT TGGCTCACCA 29220  
CAACCTCTGT CTCCCAGGTT TAAGCGATTG TCCAGCCTCA GCCTCCCGAG TAGCTGGGAT 29280  
TACAGGCATG TGCCATCATG CTCAGCTAAT TTTGTATTTT TAGTAGAGAT GGGGTTTCTC 29340  
CATGTTGGTC AGGCTGGTCT CAAACTCCCA ACCTCAGGTG ATCCACCCGC CTCAGCCTCC 29400  
CAAAGGGCTG GGATTACAGG CGTGAACCAC CGCGCCCGGC CTATCATTCT TATTTTATGC 29460  
ATTAGGAAAC TAAGGCTCAA CAAGATTAAG GCTGTCTAGG GTCACAAAGA TTGTAAGTGG 29520  
AGGGGCTAGA ATTCAAAATG AGACCTGCTT GACTCCTAAG CCTGTACCAT TTCTACTATA 29580  
TTTAGAGTGA AGTAGATGGG TTGAAGAAAT ATTTAGGAGG TGAAATTTCA AAAGTGATCA 29640  
GTCAGAAGAG AAGACATATA TGGAACCTA AATTTTCACA CAGTAAAGTG TCAATAATAA 29700  
AGGCATAATG CCAAAATGAC AGAGGCTGTG CATGGTGGCT CATGCCTGTA ATCCCAGCAC 29760  
TCTGGGAGGC TGAGGCAGGA AGATCACTTG AGCCCAGGAG TTTGACACCA ACCTGGCCAA 29820  
CACAGCGAAA CCCCATCTCT ACTAAAAATA CAAAAATTA GCTGGTAATG GTGGTACACA 29880  
CCTGTAATCC CAGCTACTCA GGAGGCTGAG GCATTAGAGT CACTTGAACC TGGGAGGCAG 29940  
AGGTTGCCAT GAGCCAAGAT TGTGCCACTG CACTCTAGCC TGGGCAACAG AGTGAGACTC 30000  
TGCTCAAAA AAAAAAAAAAAG GAAGACTCGA GGGCTAGAAC CCTGAAATTG GGAATGAACA 30060  
GGACTGGCTG AAAATGTTTC TTGCACCTGA TAAAAATCTT GAAGAAGAAT GCTTTAAATA 30120  
GATAAGAAAG GAGAGAGAGA GGTGGGCAGT GAGAGGAGAC CACCCTAAGT AATCAGAGAT 30180  
TACTTACGTT GGTTACTCAG GCTGGTCTCT GAATCTGATT ATAAATGAAA TAGAGATTAC 30240  
TTAAACAAA GGGCTGTAAG GTAGCACTGT CCAGCAGCAC TTTCTATGAT GGAAATCTTC 30300  
TATATCTGCA CTGTCCAATA AGGTGTAGCT GCTAGCACAT GTGGCCACTG AGTACTTAGA 30360  
ATATAGCTAC GACAACCGAG AGGCTGAATT TTAATTTTAA TTTAATGAAT TCAAACAAAT 30420  
TTATTTTAA TACAGCACTT TAAATTTTAT TTTTAAATTT TAATCTATTA TTTATTTAGA 30480  
GACTGGGTTA TGAGACTGGC TAATTTTTGT ATTTTGGTA GAGACGGCGT TTCACCATGT 30540  
TGCCCAAGTT AGTCTCAAAC TCCCGGGCTC AAGTGATCCA CCTGCCTTGG CCTCCCGCA 30600  
AAGTGCTGAG AATACAGGTG TGAGTCACCA CGCCCGGCCT AAACCTAAAT TTAAATAGCC 30660  
ACGTGCGGGT AGTGGCTACC ATACTGCACA TGCAACTGTA AGATGTAGAA GTCAGATGTG 30720  
AGCAAAGAAA TGACAAGCCG TTCAATGCTG TTAGAGAATG AAATTCAAGG TTCCAATGAT 30780  
CTGAACCTGT GTCCCTCAA ATTCGTATGT TGAAATCTTA ATCCTCAATG CAACAGTATT 30840  
AAGAATTTGG GGCTTTAGGA GGTAATTTGG TTTTGAGGGT GGAGCCCTCA TGAATAGGAT 30900  
GAGCACCTGA GTAGCCTCT TTGACCCTC CACCATGTGA GGACACACCA CGAAGGCACC 30960  
ATGTTGGAAG CAGAGAGTGA GCACTCCCAA GACACTGAAT CTGCCACATC TTGATTTTGG 31020  
GCTTCTCAGC CTACAGAACT GTGAGCAATA AATATCTGCT GTTTATAAAT TATCCAGTGT 31080  
AAAGTATTTT GTTATAGCAG CCTGAATAGA CTAAGACAAA GGTGGACTAA GGCAGGATAA 31140  
CAGGTTAGAA AAGGAGGCAG GGCCTTTTTT TTTTTTTTTT TTTTTTTGAG ACAAAGCCTC 31200  
ACTCTACCC AGGCTGGAGT GCAATGGCAT GATCTTGGCT CACTGCAACC TCCACCTCCA 31260  
GGGTCAAGC AATTCTCCTG TCTCAGCCTC CCAAGTAGCT GGGATTACAG GTGTGCACCA 31320  
TCACACCCAG CTAATCTTTT GTATTTTGTAG TAGAGACGGG GTTTCATCTAT GTTGGCCAGG 31380  
CTAGTCTTGA ACTCTTGACC TTAAATGATC CACCCGCCTC GGCCTCCCAA AGTGCTGGGA 31440  
TTACAGGTGT GAACCATCGC GCCTGGCCGA GGCACAGTGT TTTTACAGAG AAGCCTGTTT 31500

FIG. 6.12

AAGGTTTAAT CATATAAAAT GTATGATATC CAGTAAGTTT TGATATAAAA AAGAAACACC 31560  
TGCGGATTTT ATATAATATA TTGTGCTAAG GAATTTTAAG CACTCTACAT TCTGCTCTCT 31620  
AAGCTCTGTA AAGAGCACCA GGGATTTTTT TTTTTTTTTT CTTTTTGAAC AGGGTCTTGC 31680  
TCTGTCAGCC AGGCTGGAGT GCAGTGGCAC AATCTTGGCT CACTGCAACC TCTGCCTCTC 31740  
GGGCTCAGCG ATTCTCCAC CTCAGCCTCC TGAGTGGTTG GGACCACAGG CGCATGCCAC 31800  
TACATCTGGC TAATTTTTTG TAGAGATGGG GTTTTGCCAT GTTGCCAGG CTGGTCTTTA 31860  
ACTCCTGGGC TCAAGCGATC CTCCCACCTT GGCCTACCAC GCATGCCTGG CCACAACAGG 31920  
GATTTTTAAA TGTAAGACTA CCTAGTCAAC TCTTATTCTA TATTAACAAT ATAGACAAGA 31980  
AATAACCTCT AAGTAATCTC TATTTCAATT ATAATCAGAT TCAGAGGTTT TCTTATGCTT 32040  
TACAATATTG TCCTACTGTG GGTAGCGCAA TAACTAAGGT AATCTGAAAG ACCAGTTATA 32100  
TTATATACTA TAGTTAAATG CATTTCAACT GCATGGGAGA AAGCAACTGT GTTCTTTCTT 32160  
CTCAATTTTA ACAGAAGGAA AATTGTCAAA ATTAGCTTAT TTAGAATGTC CTATCAGAGA 32220  
ATTATTTTGA TTAATAATATA TTTTAAATCA ATAAATATT TCTCTTTGGT CAATACTTGT 32280  
CAATATAGAA TAATATCTAG CCACAAAATT AAAAAAAAAA CATTTCCTCC TATATTACAT 32340  
TCATGGATCT TCTTGAATTT CTGTTATCTA GGTGCTTTTA AAAGTCATAT TTCTGATAAT 32400  
ATGAAATCAC AGCTCCTTTT CTTTGGCATA TTTAGTTACT GTATTAAGAA AATGTACAAC 32460  
ACATAATTTA GAATGGGTAA TTATTATATT CTCTTTATTC TTATATTGAA AATGACATGA 32520  
AAATTACCAG TCTTCCCAGG TAATATAATT TAAGTTAAAG AACATCTACA TACTACAACC 32580  
AATACCCATT CCCCTATGTT ATGTTTGGAA AAACATAGAA GTATCTTTAG TAGTACTCTT 32640  
AGAAATTATC CCAGGTTTCA CATATTGGTA TTTTATTTC AGGTTTAAGT TACAGTATTT 32700  
TGGGCACCCC AAGTTTAATA AACTATTCCC TGCAGAAACC TGACAAGTGA AGTTGTGGCT 32760  
GGGAATATGT TAGTCTTCAG ATAAATGAA TTGTTTAAAG ATTTGCTAAA GATCTCAAAG 32820  
CATCTTTCTT AAATCTAAAG AAAGTCAGGA ACAAAGCCAC AACCAGGACC ATAGCATCAG 32880  
AAGATGGAAG GTTGCTTTGT CTTCAAACCT AAAAAACATT TTCCATTTTA AAATAATTTT 32940  
ACTATTTACC TGTGATACTG TTGAAAATTA TGAAAAACA GATAATTTAA AATTTAGTGC 33000  
TTTTTTTAA AAAAAAAAAA AAAGCGAATC CCTGGGACAC TTCATATAGT GCAAAACAAC 33060  
AATTCAAGAA TTCAAGCATT GAAAGAAATA ATCTCTTATC CCCCAGTCTC TGAAAGGGAT 33120  
TGCCTTTACT ACTGTTCCCA TCTTTATGTC CATATGTACC TAAGGCTTAT CTCCCACCTA 33180  
CAAGTGAGAA ACTATTCAGT ATGGCTTAGT CATTTTAAAT GCAAGAGAAT AGGTAAAAAT 33240  
GCCAAGCACC AGCCAGAGTT TTTTCTTTC AGATAGATGT GACTCTTACA GGAGCAGCAG 33300  
GGATTTCCTA CTTTGGGCGG AAAGCAGCAT TTAGGTATTC CCCCTCCAGT GCAGTTACAG 33360  
ACCACCCCCC CGTAGAAGCT GCTCCTGTCC TCTGTGGCAT GTCAGCCTCT GATTATCTTT 33420  
TAATAAACAA TATGGCATAT TAAGTCTCTT TTATGCCCTT CTTTGTATTC CCAGGTACCA 33480  
CCTCCATGTC AGGATAACAA GAATTTGGTA ATGTTTGTG AATAAATTTA GCAGAAGTTG 33540  
AAAGAAAAAT CCTGTTTCTA CAGAAAGATA CCACTGGCTT TTGGGGAGCC CGAGTTCATG 33600  
ATGAACTAA AGAAAGCCAC AAAAGTTCAC CTCAATGCCA AGACATTTCT TGATTTTTGA 33660  
AAACCCAGTT GTCGAACCAC CCATCTATAG AAACCTGAAA GACTAAAAAC TATCTTACTC 33720  
TAAACATTTT CTAGGAAGTT GATTCTACAA CACATTTTGG TTTTCCAATT TGGCTTCTAA 33780  
TAATTATTTT AAAGTTTCTG TGGCCTAAAT TTTGTTTAC ATTGATCCTT TGAATGGACT 33840  
ACTGTTTCCA CATTTTAGAA CATTTAAAAA GATATCTACA ACCCGAGTCT AATCATAAAA 33900  
AAAATCAGAC AGATCCAAAA TGTGGAACAT TCCACTAAAA AAGGAGTGGG GAGAGGTCTT 33960  
TATCTTCCA AAAATATCAA TGCCATAAAA GACAAAGACG GCTATGGAAA TGTTACAGAT 34020  
TGAAGGAGAC TAAAGTTAAA TGCAAGAAAG GAAAAATGG CATATAGGAC AGTATTGAAT 34080  
TGACTGACAA AACTGGATTA CAATAGTAGA GTATCAATGT TAACTTGCT GAAGTTGCTA 34140

FIG. 6.13

ACTGTATTTT TTAGGAATTA TTCACCTAAG AATTTAGGCA CACAGATATG ATGTATGTAA 34200  
GTTACCCCTTA AATGGCTTAG AAAAAAATGT GTGTATATTC ATTTACATAC GTATCTACAC 34260  
ACACGTGTAT TAGCGGAAGA GAGCAAGGCA CACATGTGCA TAAGTGATAA AGCAAATGAG 34320  
ATGAAATCTT TATTTTAAA TTTAATTTTG TAAGTTTCAG CTTTTTAAA TTTTAGATT 34380  
CGGGGATACA CGTGCAGTTA TTACTTGGGT ATATTGTGTG AAGCTGAGGT TTGGACCTCT 34440  
AATGTTCTCTG TTGCCACAAC AGTGAACACA GTACCCAGCA CGCAGTTTTT CAGCCCTTGC 34500  
CCCCCTCCCTC CCGCTCTCCC TCCTTGCTTT TGGAGTTCCC AGTGTCTACT GTTCCCATCT 34560  
TTATGTCCAT GTGTACCCAA GACTTATCTC CCACTTACAA GTGAGAGCAT GCAGTATTTA 34620  
GTTTTCTTGT TCTGCGTTAG TTCCGTTAGG ATAATTGCCT CCAGTTACAT TCATGTCACT 34680  
GCAAAGGATT TGATTTTATT CTTTTAATG GCTGTGTAGT ATTCCATGTT GTATAGGTAA 34740  
CACATTTTCT TTATCCACTC ATCAATTAAT GGGCACTTAC ATTGATTTCA TGTGTTTGCT 34800  
ATTGTGAACG GTGCTGCAAT GAACATCTGA GCGCAGGTGT CTTTCTGGCA GAATGATTTA 34860  
TTTTCTGTG GGTATATACC CAGTAATGGG ATTGCTAGCT CAGATAAGTA TTTCTATTTT 34920  
TAGTTGCTCT CCACAGGGGT AGAACTAATT TGCATTCCCA CCAACGGCGT GTAAGTGTTT 34980  
CCTTTTCTCC ACGGCCTCGC CAACATACGT TCTTTTCTGA TTTTAAATAG TAGCCATTTT 35040  
GAACTGGTAA GAGATGGTGT CTCATTGTAG TTTGGCTTTG CATCCAAATG AGACAAAATC 35100  
TTAATGACAG GTGAATCTAG GTAAAAGGCA TACAGACGTT CTTTGTGTTG TTTTTTAAAC 35160  
TTACATTTGA AGTTATTTTC AAATGAAAAA TAAAAGCAAG CAAAAAAGG TCATTCTTCA 35220  
TCTAGTAAAC TCTTCAAAGA TTACCACCCC CTTCAACAGT TTTTCCTGGT TCTAGTGAGT 35280  
CTTCTCCCAT TTGTTTAGAT CTTTGTGTGA ATGTAGTCTC AGATAAAAAA TTGTATTTT 35340  
ATTTCTTTTA CATATTTCAA ACAATCTAAA TTCTTTTAA ATGAAACTCA TAAAAATAC 35400  
TGCATTTGTT TCTAAATAAA ATGGTAGAGG TAATTGTCAC CTTTCCAAAC AGAAGCAATA 35460  
GGAGCAACCC AGATGTTCTA GCCACGATCC AAGTCAACCA CATTCAATCT AAGAAGTAAT 35520  
TGAAGGCTGT AACGACTTCT GTAAGGCCTA CAAAAATGAG TTCAGACACA AGCTCTGCTC 35580  
AGTAAAAATC TAGTGGCAGA TGATATATAC AATGATCTGA GAAAAAGGCA GAATCAACAA 35640  
AGGTTGTATT TTTATCTATT GCTGCGTAGC ATATTTCTT AACTTTAGTA GCTTGAAACA 35700  
ATAAACATTT ATTATTTTCA AAAGTTTCTG TGGTCAGAAA TCCAGGAGCA GCTTAAGTGG 35760  
GTGGATCTGG CTCAGCTGTA GACAAGATGT CGGCTGGGAC GGCCATCCTT TGAGGGCTCT 35820  
GAGGGCTTTG AGGGCTGCAC GATCCAATTG CAAGGTGGCT CACTCACATA CTAGGCAAGT 35880  
TACTGCTGGG TGCTGGGAGG AGACCTTAGT TTCTTATCAC ATGGACCTCT CCACAGGGCT 35940  
GCTGGAATGT CCTCATGACC TTCCCCATAG TGAGTATTCC AAGACAGGAA AGTGGAAGCC 36000  
ACAATGTCTT TCATGACCTA GCCTCAAAG TGACATACTG TCATTTACAC AATATTCTAC 36060  
TGGCTGTACA AGTTAATCCT ATTTAGTCTG GGAGGGGACT GCATAAGGGC ATGAGTAACA 36120  
AGAGGCAAGA ATCCTTGGGG GCCATCTTGG AAGCTGGCTA CACAGAAGAG AAAACACCAG 36180  
GGGAGTGCGA AGAAGGTGCA ATTAACTCA ATTCCTTGGT ATGCCAATGG TAAGAAATAT 36240  
TAGGTGATCT CTGGGGTGTA ACCTTTTAA TTTAGTTCTT CACTGAATAA TCTGGCCAGT 36300  
AATTGTAATA CAAAATACGG CACTCTGACA ATATTCTCTC CCTTTATAAT CAATTACACA 36360  
CCAGAATATA TATAAAGAAA GACTTACAAA GTCACAAGTA ATTGTTTGGT ATTATTTTAA 36420  
TAATCACATA CTAGGGCCCT ACAATTAGCA TTCACAAACA TCACTCCATG TTGGCCAGAT 36480  
AAGTCTGTCT TTATAGTGGT TTACCATACG CGCCTTAGCA TGAAGTTACA TGTGGTTTCC 36540  
TTAGCCATCA GATGCTCCAA ATGCAAAAAA TGTCTACCA CAGTCACAGA ATCATGGAAT 36600  
CCTAAAGTTA CCTGGGGTTT CTGAAAATCT CATGGGAACA ACTCACGAGA ATTAAGGCTT 36660  
AAGAAAGTGA TTTATCAAAG AACAAAACCA GCAAGACTTG AGTTTAGAAC TCGCAGCAGA 36720  
GTTGTGACTA GAACCTGTTG AAATAGGCAA TGTAGAAACC CAGACTAAGG CACATTCTCT 36780

FIG. 6.14



ACAACTTTAC TATGCAAGTA TGCTTAGATA CTCCTTAGCA AACAGCAGGC CTTGAGTAAA 36840  
TTCTTTCAGA ACTGAATACA CAAAGGATAC AGAACGGAAT AACTAACA TAGTGCATGA 36900  
TGTGCTCATT TCTGTAATAG AAATGAATTA ATTCTGATCC ATCTATAATT TATTATTGCT 36960  
CCATGATTAA CGGAAGGCAT AGGAAAGATG ACTGGAATAG TGTAAGTAGT ACAAACAAGT 37020  
ATTACACTTG ACTGAACCTC ATTACACTGC AATTGCATAT TATATAGTAT GTAGGTGAAC 37080  
AAATACTGGG TTAGTCAGTG GACCTACATT TGAATACTGG TTCTGCTCCT AGACAGCTGT 37140  
ATGATTTGAA TGACTTCTTT ATACTTTTAT AGTTTCTCTG TTCTTCTCTG TAAACAAAAG 37200  
GCTTAGAAGA TATTATGGGT TAGATTATGC CCCTTACAAA AGATGCTGAA GTCCTAAACT 37260  
ACAATACCTG TGAATGTGAC TTTATTTGGA AATAGGGTCT TTGCAAGTGA TAAAGAAGAG 37320  
GTCATGGAGT GACCTAATCC AATACGACCA GTGTCCTTAT AAAAAAAGG AAATTTGGAT 37380  
ACAGATACAC ACAAACAAGG AGAATATCAA ATGAACATGA AGGCAGAGAC CGGGGCGGTA 37440  
CATCTACAAG CCAAGGGACA CCAAAGATTT TCAGCAAATC ACCAGAAGTT AGGAAGAGTC 37500  
ATGGGACAGG TTCTCACAGT CCTCAGAAGA AACCCACCAT GTCAATACAT CATTTTGGAC 37560  
TTCTAGTCTT CAGAACCGTA AGAAAATAAA TTTTGTGT TCAAGCTACC CAATTTGTGG 37620  
TACTTTGTTA CAGCAGTCCT AGCAAATAA TACAAATGAG CTCTTAACAC TGGTCTAAAA 37680  
TAGGATAATC CTATGAAATG CTACAAATGT TTGGGAAGAT TTCTCATACT CAACTGTTTA 37740  
CAGTATACCA CAAGCCTGTC AGTTGAAGAT ACAAACAGAC CCTCTATAAT CCTCTATACT 37800  
TATATGCAAG GAACAGCACA CTTTTCTGC AAAAGGTCAG ATAGTAAACA TTTTAGGCTT 37860  
TGTGGGCCAA ACAAGGTTTC TGTTACATTT TTTTTTATA ACTCCTTAA AATGTAAAAA 37920  
TCACCCTCAT CCAACGGAC TACAGGAACA GACCTCAGGT CACATTTGAC TCATAGCCTG 37980  
ACCCCTGGTG TGTAGGGTTA ACAAGCCTCC TTTCCCTGGG CTCCTTTTC TTTGAGCATT 38040  
CCAAGCCAAA GGAACTATC TTTTCAAAT CATTTTCTCT CCTAGGTGGG ACATCTTACA 38100  
CCAGCCCAGG CATGCTTCCG ATAGCCTTAG AGTAGCTGTC CCTCCTCAG AATTACTGTC 38160  
TAATTGGCTA GAAGTTAGCA ACTTTTTACA TTTTCTTC AATTCCTTC CATTAAGAAG 38220  
AAGGCATGCA CCGGCAAATT ACTTGTGACT ATCAATGACA TACTCTCAGA AGCACCAGTA 38280  
CCCCTGTGTT GTTTCTAAC CCATTCTAAT AGACACATAC CCAAGGTTA TGCTGTTTGT 38340  
CATCTACAA AATGACTTAC ATCTAGAGAT TAAATAATT AATGTACTTT TCATAACTAC 38400  
CAGGTACAGT AGATCTGATA ATGGCAGAGC TAAGCACATA TACAGAAAGT AGGGCAAGGG 38460  
CCAGAGACTC ATTTTAAAGC AATGTTACAA GATCGTCACT GTTGCTTTTC ATTTTCTAA 38520  
ATGTGGCCAC TGCTGTTTTT TCACTAAAGG AAATGTTTTA TGTAAGTGA ATAACAGTAC 38580  
CTGGCATAAA ATAAGTGCTC AATAAATGTT AAGGCCTTCT CTCCCTCTC AACTGGCCTC 38640  
CTCATTTTTT ACAAAGTGAA ATAGAAAAAC AACATGGAAG ATAATCCTGT TGCTTAGGAA 38700  
AAATACTAA AGCTTGCTAG ACAAATACA CCTGAAAATA TAGGAAGTGA GCTATAGCTG 38760  
GCCTATATGC ATGTATGTTG GAACAGGACA AGATAGTGTA GGGTGGGGTG AAGAGGACAG 38820  
AGAAATGGAA GGAAAGGGG TACAGCCTTG GTGGCAAAAT AAAGGATAAG ACGACTCTTT 38880  
TAAATGGTC TATTTCAAAT GCTGGGTTGT GAACTTAAT TTGATTACTT CATGAGAAAC 38940  
AGCATCTATA ATCCATCCCT GATTTTCTA CAACAAAAAT TTATTATTTA TTTTATGTTT 39000  
GTGTGTAGAT CTTTATATA TATACATGTA CACACGTATA TGTATATATT ATATATGCAT 39060  
ATGCATATAT ATGTGTATAT ACATATATAA TATATTGTGT GTGTATGTGT GTGTATATAT 39120  
AATTTTTTTA AAGGAATGGG GTCTCACTAT GTTGCCAGG CTGGACTTGA ACTCCTGGGC 39180  
TCAAGCAATC CTCCACCTCA GCCTCCAAG TAGCAACCAA CAGTTTGTAG TTTGAAAAAA 39240  
TAACAAATAT TAAACACCCA TGTGTAAGGG TTGGTACTGG GCCCTGTGTT AGTTTGCATG 39300  
GGCTGTCGTA ACGTAACACT ACAGGCCGGG CACAACGGCT CACGCCTGTA ATCCCAGTAC 39360  
TTTATGAGGC CAAGGTGGG GGATCACCTG AGGTCAGGAG TTTGAGACCA GTCTGACCAA 39420

FIG. 6.15

CATGGAGAAA CCCCGTCTCT ACTAAAAATA CAAAATTAGC CATGTGTGGT GGCTCATGCC 39480  
TGTAATCCCA GCTACTTGGG AGACTGAGGC AGGAGAATCG CTTGAACCTG GGAGGCGGAG 39540  
GTTGTGATGA GCTGAGATCA GGCCATTGTA CTCCAGCCTG GGCAACAAGA GCAAAACTCT 39600  
GTCTCAAAAA CAAAAAACA AAAACAAAAA AACCTTGATA AACTACAGA CTGGGTAGCT 39660  
GGACCAACAG AAATTTATTT TCTCACAGTT CTGGAGGCTG GAAATCTAAG ATAAAGTTGT 39720  
TGGCTGGTTT GGTTTCTGAG GCCTCTCTCC TTAAGTTGCA GATGGCTGCT TTCTTGAAAT 39780  
GTCCTCACAT AGCTGTCCCT CTGTCTGTTT CTGGTGTCTC CCCACGTATC CAAATTCCT 39840  
CTTCTTATAA AGATACTAGT CATATTGGAT TAGGGTCCAC CATAAAGACC TCATTTAAAC 39900  
TTAATCACCT TTTTACGGCC CTGTGTCCAA ATACAGTCAC ATTCCGAGTT CCAGGGGATT 39960  
AGGGCTTCAA CCTATGAATT GGGGGTGGGG CACAATTCAG CCCGTAACAG GCCTAGACCT 40020  
TAATTTGTCA AACTACAGT TAGATTTATA GTATAGTAAC TGCATCTGTG CTCATCTAAA 40080  
TGTCATACCC AAATGAAATA ATATAGCATG ATGATCTGAA TTTATTAAAG GCAATTTTTC 40140  
CTATAGAAAC CCAAATCTAT AAATTATATA CAACTGTGG TAAGTTACTC GATACCTTGC 40200  
CAGGACTCAT CTATGGTGGT AGATAGACCA CAAAGAGTAC CACTGAAAGA TCCCTTTCCT 40260  
AATCACAGTT TCCTCACTGG CTTGCCACAA AACCTAAAAT TCTTCTATTC TTTCAATTGGC 40320  
AATTTATTTT CCCTGAAAAT GTAAATAATC TCTGGCAGAG CAATCTATTA AGTGATCATC 40380  
AGCCACTAAC ACCTTAGGGT AGAACAGCTC AGATCACAGT CTAAAATAA ATTCCATCAG 40440  
TATGAAATTT TCTTTATTAC TGCTCCGCTA CTGGAATGTT AGATCACTGT CTGCTTTAAT 40500  
AATAATTCTG GTGTAGGTCA TTCAAATTTT GTTAAAGATA ATAAGACAAA TAGCAGGTAT 40560  
AAAAACATTC CGTCATCTAA TAAAGCAACC CGAGAACAGT AAGAAGAACG TGATGAAATT 40620  
AACATTTTTC AGTACCTGCT AGGAATCAAG TATTCTGCTA GATATTTTAG AAATCATCTC 40680  
AATTCATCC TAAAAATTAT TCTGTATAAT AGTATAGTT GAGTATTCCT AATCCAAAAA 40740  
TCTGAAGCTT TTTTTTTCCT GAGACGGAGT TTTGCTCTTG TTGACCAGGC TGGAGTGCAA 40800  
TGGCGCAATC CTGACTCACT GCAACCTCCG CCTCCTGGGT TCAAGTGATT AGGGATACTC 40860  
AACTGGCTAA ATATAATGCA AATATTTCAA AATCTGAAAA AACCCAAATC TGAAACACTT 40920  
CTGGTCCCAA ACATTTTCAGG CAAGGGACAC TCAAGTTGTA TTAATCCCAT TTTACAGAAG 40980  
AAGAAACAGG CTCAGATAAA TGAACATCTC AGAGCTTGTT GATAGCAAAG GAGAGATTGA 41040  
AACTGTCAGG CCTCTGATCC CAAGCCAAGC CATCACTTCC CCTGTGACTT GCATGTATAC 41100  
ATCCAGATGG CCTGAAGTAA CTGAAGATCC ACAAAGAAG TAAAAATAAC CTTAACTAAT 41160  
GACATTCTAC CACTGTGATT TGTTTCTGCC CCACCCTCAC TGATCAATGT ACTTTGTAAT 41220  
CTCCGCCACC CTTAAGAAGG TTCTTTATAA TTTCCCCAC CCTTAAGAAG GTTCTTTGTA 41280  
ATTCTCCCA CCCTTGAGAA TGTAATTTGT GAGATCCACC GCTGCCCGCA AAACATTGCT 41340  
CTTAAGTTCA CCACCTATCC CAAAACCTAT AAGAAGTAAT GATAATCCAC CACCCTTTGC 41400  
TGAATCTCTT TTCTGACTCA GCGCGCCTGC ACCCAGGTGA AATAAATAGC CATGTTGCTC 41460  
ACACAAAGCC TGTTTGGTGT CTCTTCACAT GGACACGCAT GAAAGAAACC CTACCTGGTT 41520  
CTGTGTCTTA CCTGTTGGGG GCCTGTGGTC AACTACTAG TACGGAGTTT TAGTGTCCTC 41580  
ACTTTAAAAA TGAGGGTTGT GGCCGGGCGC GGTGGCTCAC GCCTGTAATC CCAGCACTTT 41640  
GGGAGGCCGA GGCGGGCGGA TCACGAGGTC AAGAGATCGA GACCATCCCG GCTAAAACGG 41700  
TGAAACCCCG TCTCTACTAA AAATACAAAA AATTAGCCG GGCGTAGTGG CGGGCGCCTG 41760  
TAGTCCAGC TACTTGGGAG GCTGAGGCAG GAGAATGGCG TGAACCCGGG AGGCGGAGCT 41820  
TGCAGTGAGC CGAGATCCCG CCACTGCACT CCAGCCTGGG CGACAGAGCG AGACTCCGTC 41880  
TCAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAATGAGG GTTGTAAGGT 41940  
AACTACCTAC TTTTATAGC ATTGTAGTGA AGTTGAAATG AATTAATCCA CATATATTAT 42000  
AGTGTGGTAG AATGCAGCAG AACTGATGAT GTATGACTTC TAAGACTAGT CCTTAAGAGA 42060

FIG. 6.16

CCTGCAGTTT TTGCTTTTGC CCTCTTGGAA CACTCCTGTT GCCATGTAA GAAAACTCT 42120  
GGGGAGACTA TGAAGGAAGA GAGCATACTC GGGGCAGGGG GGTGAACAGG ACGTGCACAT 42180  
GTACGAGCGT ACAAGCCAGG TGACACCAGT ACCACAGCCT CAGACATGTC ACCGGGGATA 42240  
CCAGCACCAC AGCCTCAGAC ATGTCACCGG GGACACCAGC ACCACAGCCT CAGACATGTC 42300  
ACCGGGGACA CCAGCACCAC GGCCTCAGAC ATGTCACCCA GGGACACCAG CACCAGCACC 42360  
ACAGCCTCAG ACATGTCATC GGGGACACCA GCCCATGGT CTCAGACATG TCCCTGAGGC 42420  
CCACTTAGAC CCTTCAACCC CAGCCCAGCT GCTAACTGAC TACAGCCACA TGAACAGAAC 42480  
CAGGTGAGAC CAGAGGAAAC TTCCAGTCAC CTACCAGATC ATGACAAATA ATAAACGATG 42540  
TTTTTTAAAC CACAAAGATT TGGAGCAGCA TTTGTTACAC AAAATTAGAC AACTATTACA 42600  
GTTGCACTAA AAACATGTTT ATTTACAATA CTAAATTAGA AGTGTAAGAA TGGGAGAAAA 42660  
ACTTCATACT TAAAAGTCA TTTTTCCTC CAAAACTTC CAACTTTGAA AAACGATT 42720  
TTATAATGCA TAAAATTAA AATAACCTTA GAATTTATAT GAGTAGCATA GCCAGCTGGC 42780  
TTTATTATCT GTTGTACTCA ACACTCAAT AATCACTGAT GTTTTAGAAC TCTTCAGATT 42840  
TAGAACTCTT GCCCTTGCTT TAGTCTGGT TAAGCTAAAT AATTGTTCTT CCTCAAGAAC 42900  
AAATGACCTT ACCTCGTTTT GTTTTCCTG TCTGAGAGAA ACACATTAGC AGTCTCCCAT 42960  
CTTGTTTTTC CTTTTCCTGT CACCCAGGAC AGAGGGCAGT GGTGTGATCA CAGCTCTGCA 43020  
GCACGACTTC CCCAGGTTCA GGTGATCCTC CCACCTCAGC CTCCAAGGA GCTGGGACCA 43080  
CAGGCACATG CCACCACGTC CAGCTTAATT TTGTATTTT TTGGTAGAGA TCAGGTTTTG 43140  
CCTTATTGCC CCAAGCTGAT CTTGAATTCC TGGGCTGAAG CAATCTGCCT GCCCTGGCCT 43200  
CTCCAAGTGT TAGGATTACA GGTATAAGCC ACCGTGCAGC CTTATATTTT GTTTTAAATT 43260  
TTCCTCTGTA TTTTCTCTC TGGCAAATTG TTTAGGGAGT TTCTTTAGTT TATCAGACTA 43320  
AATTTCAAGG CTTTCTTCC AATTTTGACA TGTAACAGT CCCTCATTC TGCTTATCTA 43380  
GTGATTATTC CCAAATCTGT GTTTACAGTC TAGCTGTCTC TCCTGAGATT AAGACTTGTT 43440  
TCTCTAACTA CCTGACGGCA GAATCTCCTC TTGGAAGTAT CAAGGAGGCA GTTCAAACT 43500  
GAACTGGGCA TTGGCTCCAC TCCTTCTCCT TCTCTTACT ATTAATACCC TTTCTCTCCT 43560  
TCTATATGAC CACACTAAGT CTTATTTAGG CATCGTTTCT TCTGGGAGAC CTTTGTAGAA 43620  
TCTCTGAGGT TATGTTACA TGCTAAGGT TTCTTGACAT TCTCAGATTG GGTTAGGTGA 43680  
ACTTTTAGCA ACTATCTTT TTAATAAAAA GTCATCCCTC AGTATCTGTG GGGAATTGGT 43740  
TCTAGGACTC CTAAGGATA TCAAAATCTG CATGAGCAGC CCAGGTGAGA CCAGCAGAAG 43800  
CACTTTACAG TCACCTACAG GATCATGACA AATAATAAAT CATGTTTAAAG CCACAAAGTC 43860  
CTTTACATAA AATGGTATAG TATTTGCATA TAACCTACAC ATCTTCTGT ATCCTTTAAA 43920  
TCATCTCTAG TTTATAATAC CTCATACGAT GAAAATACTA CGTAAATAGT TGTTATACTG 43980  
TATTGTTTAG GGAATAATGA CAAGGAAAAA AGTCCACGCG TGTCAGAAT AGATGCTTTT 44040  
TTTTCTCGTC TAATATTATG GATCCACAGT TGGTTGAATC CACAGATGTG GAATCCATGG 44100  
ATACCAAGGA ACGACTGTAT GCATTTTGAC AATTATACTT CTCATCTTAC CATGCATTCA 44160  
ACAAACAGAA CATGTAAAGC GGTGATAATG CTGTGATGAA AAATAAAGCA GGGGAAGAGG 44220  
CTGCATCCAT CTAGTGGAAG CGATGCCCTT TTCAATCTGC ACAAAGAGAA AAAGCTGCTC 44280  
TCCAAGTTGG GGGGTGGGTG GGTGAGGTAT GTAAATTGGT CAGGAAGGGA TCTGTAGGCA 44340  
CTTACAGATT TGACGCTAAT GAGATGGGAA GCCACAGGAA GGTTGTGAAG AAAAGACAAG 44400  
ACATGATCTG ATTCATGTTT TGATCTGATA CACTGGTTGC TAGATGGAGA ATAAGCTGCA 44460  
TGGCGGTGAG AGGAAGCAGA AACAATAGGA GGGTAATGCT ATAATCCAGT GTTCCATAAT 44520  
CCAATATCCC CCAAGGAAC AGTTCGGCAA TGTCTGGTGA CATTCTGGC TGTCAAACT 44580  
GTTGGGGCGG AGTGCTACTT GCATCTAGCA GGTAGAAGCT AGGGATGCTA CTAACATCC 44640  
TACAATGCAC AAGACAGCCC TTCCCCAAC ATTGCTGGCC CAAAACGTTG ATAGTACCAA 44700

FIG. 6.17

GGCTGAGAAA CTCTGTTATA ATCTGTCCTA GAATGTAGCT TGGATTGAGA TGGCAGTGGT 44760  
AAGAGCTGGA GAAGTGCTTA GCTTCCCAAT GTTTTTTTGT TTGTTTGT TTGAGACGGA 44820  
GTCTCGCTCT GTCGCCCCGGG CTGGAGTGCA GTGGCGTGAT CTCGGCTCAC TGCAAGCTCT 44880  
GCCTCCTGGG TTCACGCCAT TCTCCACCT CAGCCTCCCG AGTAGCTGGG ACTACGGGCG 44940  
CGTGCCACCA CACCCAGCTA ATTTTTTTGT ATTTTATAGTA CAGACAGGGT TTCACCATGT 45000  
TAGCCAGGAT GGTCTCCATC TCCTGATCCC GTGATCCACC CACCTCGGCC TCCCAAAGTG 45060  
CTGGGATTGC AGGCGTGAGC CACCGCGCCC GGCCTGAATG TTTTAAAGT ACTGGTGACC 45120  
ATATTCGCTG AGGGATTAAA TGTAAGGTAT GAGGGGAAAA TAGGAATCAG ACACCAGGGT 45180  
TACTGCCTG AGCAATGAGA AGAACGACGT TCCTCATACG GAGATGAGGA AGAATGTGGA 45240  
ATAGCAGGTA AATAGCATGT GCTTGCTTTG TTTGGGGCTG TGCAGAAGAG ACTGATGGGA 45300  
CCACGTGCT CAGTTCTGGA TATATTAAAC TTGGAATGCC TATTTGGCAC CAAGTGAATG 45360  
TATCAGGTAG GCAGATGGAT AAATGAGTCT GAAGTTCAGG GGAGAGGCTG GGGTGGCAAT 45420  
ATGAACTTGG GAGTCTCCAC ATCTGAATAG TATTTAAAGC TATACAACAG GATAAGGTGA 45480  
TTTAGGAACT AAACACAAAT TGAGACGAGA TCCGAGCCCA GAGGCACTCC GATGTTTAAA 45540  
AAAGAGGAGG AACCATCAAA AGATACTAAG GAGAAGCCAA GAAGTAGGAG AACTGAGAGT 45600  
CTGAGAGAAT CATTATACTC ATTTGATCGA CTGCAACAAA TGCTGCTTAG AGGTCAAGCA 45660  
AAATGAGGAC TAAGCAAGGA CCACCAGGTC TGGCAACATG GAGGCCAATG CCGACGTGGA 45720  
AATGAGAGTT TTGGTGGGAA GACAGGAATA AAAGTCTCAC AGGTCTGAAT TCAAGAGAGA 45780  
GAACAGCAGA AGAAGGGTAG AGGTGGTAGC CATAAACAAT GATACATTCT CTTGAGGCCT 45840  
TTTCTTGCAA AGCTCAGTGA AGAAACATGG TTCCAGAGAG GGATTTTTTT TTCTCTCATT 45900  
TTACATATGC AACATATAA AAAAGCTGAA AGAATTGTTT GACAACCACC CTTATTCTTA 45960  
CCACAGATTC AACATTTAAT GCCATATGTT TTCCCTGTAT GTACTGTGTA TTGTTTGAGG 46020  
ATAACTTCCC CTCTAAATAT ACCTCGGATG TATCTCCTAA AATAAGTCCA TTCTCCTACA 46080  
TAGCCATAGT AACCATGAAC ACACCTAGGA AAATTAATAA TATATTCTCA AATATATTAT 46140  
ATAGCTGGGT ATATTACAAT TTCCCAATA TGTGATTGTC AAACCAGGAT CAAGTCAAAG 46200  
TCCATGCACA GCATTTGGTT GTCATGTGTC TTTGGTCTCT ATTAATAATG ATGACTGTTT 46260  
GAAAAGACCT GTCCTATAGA ATAAATTGA CTGATTATGT CATGCCATTG AACTTGTTTT 46320  
TCTATTCTAG AAGGATAGTT TTTAGGGTA GTGAATACAT TTATTACTCT TGGCACAATA 46380  
GTCTAACATT TCCCAATTC CTTATATCTC TGCCCTTTCA TTTTCAGAAA ATCAATTATT 46440  
CCAAGATTG TTTTTCATT ATCATCACTT ATTAGCTCTG AAGACTCAAC TGAGCAACTT 46500  
TCAGGGTTTA TATACCCTAT ATTCAGAAAA AACTACTAC CATCTCTCAT TTACCCTAAG 46560  
AATTCATAGG AGAGCATGTC TTAAAGCTGA TCAATAACCA AACCAAACAT TTTATTGATC 46620  
ATATTACATT TGGAAGCAA AATGAATTC CTAATTTTC TTCCCTGATT AGCAAAATAG 46680  
TGCCCTCGAA CACTTGAGGG TGAAAGTTGT TGTCAAATAT GCCTACATGA CTGGAAATTA 46740  
TGACATCCAA ATGAGTTCAC TGGGTCTGAT AATAATATGC TCTACATGCT TATGTCTATG 46800  
TAATAAACAG CTTACATCTG GATGAGAAAA TTGATTATAC AAATATTGG GCTTCTACAA 46860  
CTGGTCACTC ATCTGTAAGT ACTTAAAGCA ACTTAAATG CAACTGACC TAACAATGCT 46920  
TATGGTTAGA ATTCCAAAGA ATGTTTAGGC ATTGTCAGGT TATGTTAAAA CATCTTCTGC 46980  
CACAATCTTC AAGTGATTGA TCTTTTCTGT TGTGTTGAAT AGCTATAGAA GACAAATGAA 47040  
TTCTGCACTC CTGAATTCAA TGAACATTC AAGTTTCCTC ACTTACACTG TAAGATTACG 47100  
TAGCATATTT TAAGAAATAA ATTATAATCA TTTTATTTC CTTATTGAAC TTCTTTTAAG 47160  
CTTTGGCATT AGAATTTTAA TCAAAGCACT GCCACTTGCT TACAGTGATG GTTTTTAGGC 47220  
TCTTTGGGCC TATGGACTAT TTCAATGACC TTCACTAGCC ATCTAGTCCA CCTTATCCTA 47280  
ATTATTACCA CTGCAAAAGA AACCCCTCACT TGAATAAATC AGTAGATGGG CATGAGGCAC 47340

FIG. 6.18

CTCCCAGGAG ACTATAATTA TTAAC TCATA CTAAATCAA AATTGTAGCT ATTATCACTC 47400  
ATATGGTTTG GCTCTGTGTC TCCACCCAAA TCTCATCTTG AATTGTAATC CCCACGTGTC 47460  
AAAGGAGAAG CCTGGTGCGA AAGGACTGGA TCATGGGGGC GGCCTTCCCC CTGCTGTTC 47520  
TTGTGAAAGA GTTCTCCGAT GGTTTAAACG CATGGGACTT CTCCTACTT GCTCGCTCTC 47580  
TTCTGCCACC ATGTAAGATG TGCCTTGCTT CCCCTTTGCC TTCTGCCATG ATTTTAAGTT 47640  
TCCTGAGGCC TCCCAGCCA TGCAGAAATG TGAGTCAATT AAACCTCTTT TCTTTGTAAA 47700  
TTACCCAGTC TCAGGTAGTT CTTTACAGCA GTGTGAAAAT AGACTAATAC AATCACCTTA 47760  
TGGTAAGTCT GTCTATAAAT CACCTGAAC TACAGACT ATCTAGAAGA ACATGTAACC 47820  
AGAGTAGTTC TTGATCATGC TATATAAATT ACTGATACAG AAATAGAGCT AGACAGGAAG 47880  
GGGCTGGTAG TAGAGAATCA TCCTCTGGAC ATATTCTCAC AGCCTAATCT CTAGCTAGCA 47940  
AATTTTATAA TATATATAAA AATACAATTA TTTCACAAA TTACCATGAA ACGATTTTAT 48000  
TGGGATATTA GACATTACTG AATTACTTGT TCTGTGAGGT ATACAGTGAA ATTAACATGT 48060  
TATAAAATTG TGGTAGCCGG CCCCCAAGAT GGCCTCCAAT GAATCCTTCA CCTCTTGGA 48120  
TTCATACCTT TGTGTAGGTA GGTCTGTGTA ACCCATAGAA TACAGCACAG TGACAGTAGG 48180  
TCACTTCCGA GGTTAGGTTG TGAAAGACAC TGTGGTTTCT GCCTCTCTCT CAGATCACGT 48240  
GCTCTGGGGG AAAAGCCAGG TGTCATTTTG TGAAGACACT CAAGCAGCCT TTAGATGACT 48300  
GCAACCACAT AAGAGGCTCC GAACTGGAGC CACTCAGCTA AACCACTCCC AGATTCCTGA 48360  
CCATGTATCA TTTCATACAC AATGTATGAA ATGACAAATG TCTGTTGTTT TAAGCTGTTT 48420  
GGGGAATAAT TTGTTACATA ACAAATATA ACTAATACAA TAATACATAC TGATTTAACT 48480  
GAAGTTGTAA CTCATAACT TATTTAGGTA CTAAATCA CAGCAACCCG ATGCAAAGTA 48540  
CTAAAAAAA AATCCATTAA TACCTATTGA GTACTGTTGA GGGCATGAGG AAAGCTCTTT 48600  
CATACTCCAC ATAAACTTC CTTACCGTAA TATTCATGGC TGACCTCTAC TCTTAACTCC 48660  
TTTCTAGGAT AGGAGGGGCT AACTGATCTG ACAGCAAGTT TGGGAGAAAA AATTCTGAGG 48720  
CTCGGCCAAC TTCCTCTCTT CTTTCCATTT GGGATTTGGC TGAAGTGAAGA GGGTCATTTG 48780  
TTTTGGCCTG CTCTCTTACA CAGTAAATGT AGTGGGACAA GCTCTATTCT TGTGATAGA 48840  
AAAACTCGAA TTTTAAATCT GCCTAGTTCT TTGCAGCTCG TTGTTGCTCC AAATCTCAGC 48900  
TACCTTTTGA AACAACCTTT TTCAGTAAAC TTAATTTCAA TCTTCATGTG ATTAACTGG 48960  
ATCCAAACAC AGGCAGATAA AAAAGGTGGG GCATTACTTA TCAACCTCTA AACTAAGTTT 49020  
AATTTTGTGC CCTCATGGAG TTTATAGTAT ATTTGAGGTT TAACTAAAA CACCTGGTTT 49080  
TAAACAGAAA CTATAAAAA CACGATTAAT AGGTGAGGCC GGGCGCGGCG GCTCACGCCT 49140  
GTAATCCCAG CACTTGGGGA GGCCAAGGCG GGTGGATCAC GAGGTCAGGA GATCAAGACC 49200  
ATCCTGGCTA ACACGGTGTG AAACCCCGTC TCTACTAAAA ATACAAAAAA TTAGCCCGGC 49260  
GTAGTGGTGG GAGCCTGTAG TCCCAGCTAC TCAGGACGCT GAGGCAGGAG AATGGCGTGA 49320  
ACCCGGAAGG CGGAGCTTGC AGTGAGCCAT TGCGCCACTG CACTCCAGCC TGGGTGACAG 49380  
AGCCAGACTC CGTCTCAAAA AACAAACAA AAAAAAACA AATAGGTGAA AGGCCGTGAT 49440  
CATTGGTAAG CGTAAGAAAA TCTGAGGGAG AAAAAATAT AGATGCCAG GCCCATGCC 49500  
AAACTCATGG AATCATGCAT GAAACCCAAG CAGCTGCAGT TTTAACAAGT TCCCAATATA 49560  
TAGTTGACCC CTGAACAATG CAGGTTTGAA CTGCCTGGGT CCACTTATAA AATGGATTG 49620  
ATTTTTTCA ATAAAAGTTA CACCGAGTGT GCCTGCCTCT CCTCCCTCCC TCCCTACATG 49680  
CTCCTGCTCT TAAGCCTCTG CCATGAGGCT TAAGACAGCA AGAACAACCC GTCCTGTTTA 49740  
TTTCAATAGT TTTGGGGGGT GCAGGTGGTT TTTGGTTACA TGGATAAGTT CTTTAGTGGT 49800  
GATTCTGAG ATTTTAGTGC AACTGTCACC TGAGCAGTGT AACTGTATC CAACATGTAG 49860  
TCTTTAACC CCCATCCAAC CTTCTTCCCC AACCCGAATC CCCAAGTCC ACTGTATGAT 49920  
TCTTATGCCT CTGTGTTTTT ATAGCTTAGC TCCCACCTTT AAGTGAGAAC ATACCATTTT 49980

FIG. 6.19

TGGTTTCCCA TTCCTGAGCT ACTTCACTTA GAATACTGGC CTCCAGCTCC ATCCAAATTG 50040  
CTGCAAAAGA TATTATTTTCG TTCCTTTGTA TGGATGAATA GTATTCCACG ATGTACATAA 50100  
ACATTTTCTT TATCCACTCA GCTCCTCTTC AGTCTACTCA ATGTGAAGGT GACAAGGACG 50160  
AAGATCTTTA TGATGATCCA TTTCCACTTA ATGATTAGTA AATATACTTA CTTTTCCTTA 50220  
TGATTTTCTT AGTAACTTTT TTTCTCTAAC TTACTTTATT GTAAGAATAC AGTATATAAC 50280  
ACATATGACA TACAAAATAC GTTAGTCAAC AATATATGCT ATCAGTAAAC TTCCAGTCAT 50340  
CAGTGGGCTA TTAGCAGCTA CGTTTTTTTG GCAGTCAAAA GCATGGGGAA GGAGAGGGTG 50400  
GTCCCTAACC CCTGTGTTGC TCAAGGGTCA ATTGTAATAA TACCCATTTA AGAATCCATG 50460  
GTATATATGG TAAGTGCAAC AACTCTAGAA GAGAGTGCTA GGAGTTGGAA AAGGAAAGAG 50520  
AAAAAGCAAT TTAAGCAAT CTGTAAAGGA CATGCAGGGT TTAGATGAGG TGGAAGGGTG 50580  
AGGGAAAACC AACATCTGCT GTGAGGGCAT ATTAAGTCC AGACATTGTT CTATGTCTTA 50640  
CCTCATTTAA GAGAATTTCA TTTACACAT GGAAGAACTG AAGCCCAGAG AGGTAAATA 50700  
ATTTGCCTGA GGCCAAAATT AGTTAAATAA CAGAAGTGGG ATTAGTAGAT GTTTTCATTT 50760  
TATCAGTGAA ACTGAGCCTC AGGGAGGTTA AATATTTTGT ATGAAGTAAC AAAACTGAGA 50820  
TTAATATATG GCCAAGTTTA AATGAGATCT GTAAATCTAA TGCCTACACT AAAACAAAAA 50880  
AAAAAAGTG GGAAGAAAAG GTCTATATTG CTTAGCAAAA CAGAGGTAGG GAAGCAAAAA 50940  
TAAACTTACA AAATCAGATT AGACCACCAA AAAACAGTCC CCATTTTAAC TTATGTGGTG 51000  
AGAACCATAT ATTAAGACC ACCAGTGGCT TAAAAATCTT TTTAAAAAT GAATCTGTTT 51060  
TCATTATCA TTAGTTTTTA TCTAATGAAT AATGTATCTT AACTGATACA TTTACTAAAC 51120  
AATTACCAGC TCCAATTAGC ACTCAGTTAC AATTCAATCA TTAAGTAC CCTCAATTTA 51180  
GCTGTCAACC TAGTCAAAAC AGTTAAGTGA TTTTACGGTC ATCCTCAGTT GCAGAAGTAT 51240  
AATGTTTATG GCTGGAGTCA TTTTATTTT AACTAACATT TTTAAAAAG ATTGCTTTGT 51300  
AACAATGTGT TATGAGTCCT TTGTGGTAAA TACTGCTTTT TTTTGTAGAC GCAGTCTCGC 51360  
TTTATTGCCC AGGCTGGAGT GCAGTGGTGC GATCTTGGAT CTGAGGCTCC TGCCTCAGCC 51420  
TCCTGAGTAG CTGGGACTAC AGGCATGCGC CAACGTGCCC AGCTAATTTT TTGTTTTTTT 51480  
AGTAGAGATG GGGTTTCACC ATGCTGGCCA GGCTGGTCTC GAACTCCTGA CCTCGTGATC 51540  
TGCCACCTC GGCCTTCCAA AGTGCTGGGA TTACAGCTAT TTAAGGACT TTTAAAAAG 51600  
TGAAGCTAAA CATTTATTCA TCCCTATTCC TCATCTATAG GGACTTGTGC TCTATTTTTC 51660  
TTTGAAGACT GAAGTAAAAA TTCACCTTTG TGAGGGTCTT CCTATAATTA AAATTAATCA 51720  
TTTTTTCCTC CATAGCTTCT ACAAACATT GCCTGTACAA CTCTATTTAG CACTTATTTT 51780  
ATCCCGCCTT GTATGAAAAC TATTTGTTA CAAACGTTTC TACTTCTCTT TAGGAATAAG 51840  
GACTATGCAT TATCACTGT TGTATTCTCC CTGCATTTAT GGCAGTCCTT TGCACATTAA 51900  
ATACAAGCTT TTTGGCTCTG TGCATCTCTT CATCTGGCTG TTCATCTGTA CCCTTTAAAA 51960  
CATCCTTTAT TAAAAAACA GTAAATGTAA AAAAAAAAAA AAGCCATTGA TGAAAAAGTT 52020  
AATAGCTTTC TCAATAAGAA AAGAGTATCA ATTATGCATA CGTCTGAAC AACAAACATG 52080  
AATGAAATAG GCTATTTAAT ACATTCTGTT TAAAAGTAG GTTTGGTCAG CCATGTAAAT 52140  
TGAAATTGG GAGCCACCAA GATAACTCAT CAACAAATAT GCACTATGTA CTAGGCACTA 52200  
TATAGATGAT GGTGAACCAA ACAGATGTAA TCCTTGCTCT TACAGATCTC ACAACCTACT 52260  
ATGGGGCCAA AAATATATGT GTATGTGTGT GTGTTATACA TATATACACA CACATACATG 52320  
TATATATACA TATACACATA CACATATATA CATACGCACA CATAACATA TATACACACA 52380  
CATAATATG CTATGAGGAA AACAAACAGG TGGTGAGAAA GAATTAGAGT AGGGGTAGAG 52440  
GACAGAGGGC TCCTCAAATA GGGTGGACAG CTTGACACAA GAACTCGAG CTAAGACTCC 52500  
AAGGATGAGA AGACAGTTAT GTAAAGAAAA GGGGACTAGC ATTGTCAGCA GGTAGCTAAG 52560  
GCCTTAAAGC AGACAGTCAT GTGCTGCAAT GCCAGCTTCA AGCGAATACA GTTACTAAAG 52620

FIG. 6.20

CATATCTAAC CTTCTATGTG AATGTAGTTA CTAAAGCATA TCCTCCAAC TCCATTTTT 52680  
CTTTTGCTAT TGTCTTACC ACTTCTCCTT TTCTGTTGAC AATTATTTTA AATTTCCTGG 52740  
CTAAATTA AAA TGATGGCATG AACTCTGGGG AAAGTAAGAC TACCTATGTC CAAATAATCC 52800  
TAAATTCCTT CTAGTCCTTA TGA CTGATCA ATTCACCCTG AAGTGACAAC TATGTCCCAA 52860  
TTAGGAAAGA GTGTTTCTTT ATCTGCACTT AATTTTTTGA TTTGGAGGCT TCCTGATTGC 52920  
TAATCAACAT GTTGTGTGAT TACTTCAACA AGTACTTATA GAACGTTATT TTGCTACTGG 52980  
AAAAACGTTT TGCTGCTTTC TGAACCTTTAG GTTGCTCTAG AGTCTAGGAA GAGTGACTGT 53040  
ACCTAAAGCA GTTCCTAATT ACTGGACATT CTCAGATCTG CTAGAGCTAC ATGTCCAATT 53100  
ACGAGAATAT ACTGGAAAAA GCCCTGGATT AGAAATGAGA GGATGTAGGT TTAGTAGCCA 53160  
GGTCAGCCAC CTTGTTAATG CAAATTTGAG TAAATTGTTA CTTCTTTTAG GCCTTGTTTT 53220  
TGCTGTTTTG TTTTCTGAC AGTATGGTCT CTGTGGTCCA GGCTGGAGTG CAGAGGCACA 53280  
ATATCAGGTC CCTGCAGTCT CTACCTCCCA GGATCAAGCC ATTTTCATGC CTCATCCTCC 53340  
TGAGTAGCTG GGATTACAGG CATGTGCCAC CACACCCTCG AACTCCTGAC CTCAAGTGAT 53400  
CTGCTTGCCT CAGCCTCCCA AAGTGCTGGG ATTAGAGGTG TGAGCCACTG TGCCTAGCCT 53460  
TACACATTGT TTTCTTACTG GTAAAGTGGG AATATCTAGA AGTTGCATGC TACATAAATT 53520  
CAACCATATA TTATTGGCAA AAAATTTTAA AGAAAAACAT CAGCTTAAGA GTACTAATTG 53580  
AGTACATGCC TTGGAATGAG CATGAGCTGG AAAGAACAAA CCTGTTGTTA CATCACTCAT 53640  
TGCTGTTTTT ATATGCTGCT CATTGTAAAT CTGCTCAGT GGCATGATTT TAGTGTTTAA 53700  
AGATTTATTT GTTTGTTTGT TTAGGACAAA GTCTCTACAC ATAATCTACT TGCTTCATAT 53760  
ATACATACTT ATGCATATTA TGTATGTACA TACATGCTCT CAGGGCTCAC ATGAAAAAAC 53820  
AGCCATTGAG GTGATGTGAT TTATCTCATA TGCTTACTTT AGAGTCAACA GGGTGTGAC 53880  
TCCACTATAC AATACTGGCA TGGAGAACAC ATAAGTCAAA GTAGACAGGA CCCAGCCGTA 53940  
CCATTGGCTA GGGCACAAAT ATATTCACAT ATGTGGAGAA TGATGTACGT AGAAAGGTCT 54000  
TCATTGCACA ATGCTCTTTA ATAAAGATCT GGAAAAAAA AACACCTAAA TGTTCAAAAG 54060  
GATAGGGTAG ATGAAATAAT GGTACATTAT AAAATGGAAG ATTATGCAGC CATAAAAATA 54120  
AGGAAATACC TTAATAATA ACAGAACAAC TTTTAAGGTA AGTGAACAAA TAAGGTACAT 54180  
AATCACTATG CATAGTATGT ACCATTTACA TAGAAAAAGG GAAGAAAAAT AAAATATATA 54240  
TAGTAATTTA TTTGTTCTTA CATGTGTAAA ATTTTCTGA AAAATATACC AGAACTGGT 54300  
AGCACTGGTT GCTTCCTAGG CAGAAAATGA CTGAGTATCC TTTTGTACCT TTTGAATTTT 54360  
GAACCACGTG AATGAATGTG TTACCTATGA ACAAATGAC AAGTTTAGAT CAGCAAGACA 54420  
GCAGTTTGAG ATGAAATGGG ATTACACCCT TAGTAGGAAA AACTTTTTAA AGCAGGTGGT 54480  
ACTTCTAAGA GCAAATACCT GCACATGGAA TGTGAAACT ATAAGGAACT CTCCTTAAGA 54540  
GATCCATCTA TTCCAACTT CTCATTTTAT AGATCTGTAA ACTGAGACCT TAAAAATTCA 54600  
GTGACTTGCA TAAGGTCACA CAGCAGAAGA GATGGGATTA GATGCTAGAT ATTCCAATAT 54660  
CAAGTTTGA CTATTA AAAA TTCAGTGACT TGTGTAAGGT CACACAGCAG AAGAGATGGG 54720  
ATTAGATGTC AGATATTCCA GTATCACTT TAGACTATTA TCACACCATC TTCTCATTTT 54780  
CTGGGGGCAA AACAGAACCA AGTAAGTTTG GGCTACATTA CGAGTTGTCA TGTTTTTGT 54840  
TTTGTTTTTT TGAGATGGAG TCTTGCTCTG TCGCTCAGGC TGGAGTGCAG TGGTGTAAATC 54900  
TCAGCTCATT GCAATCTCTG ACCCCCGGGG TTCAAGCAAT TCTCCCTGCC TTAGCCTCCC 54960  
GAGTAGCTGG GTTACAGGC GCCTCCACCC GCGCCCGGTT AATTTTGTGA TTTTTTTTTT 55020  
TTTTTTTTTAG TAGAGACGGG GTTTCACCAT CTTGGCCAGG CTGGTCTTGA ACTCCTGACC 55080  
TCGTGATCCA CCCACCTCAG CCTCCCAAAG TGCTGGGATT ACAGGTGTGA GCCACCACGC 55140  
CCGGCCGAGT TGTCATGTTT TATCTAAATT TTAGAGTCTA ATGTATAAAT TAACCTTAAG 55200  
CCCTGAAACT ACTAATTCT TGTGTTGATC ACTATACGGC TACACTTAAA AATATGCTGT 55260

FIG. 6.21

GCATACCTCT ATCATTGCAT GTATACAATA TGATAGATGC ATGATATGAC AGACACACAA 55320  
TATGATACAC GTATTTTTTT CTATCCTAAC ACATCTGAAT TTA CTGAAAT AACTAAAATG 55380  
TCTTAAGTTA CTTTTTTAAA TATACACATG CATAGCACAA GCGTGTGCC AAAAATATGA 55440  
ATACAGGTTT ACAATTCCTT AACTAAAACC CAAGGGTTGG ATGTGTTTTA GAAATAAGAA 55500  
TTTCATACAA TTTTAAAGTG TTACAGGGTA TATAAACCAT TATATAACAC ATACCAGGGG 55560  
CCAAGGGCAG CACCCCATAA TCAAACATAT TAATATAGTT TCAGCAAAAC ACATGGGATA 55620  
AAGACTATAT ACAGCTTCTC AATAGTTCAG GTCATATTTT GCTACCAAAT GAATTTTGTT 55680  
GCCAAGCTTA AGAAGTTTTT GGTTTTACC GCTTCTGAA TGTTAGATTG AGATGTGGGA 55740  
TTACAGACTG TACTCATAGA GTGCTTCTAG AAAGCAGTCA GTCACCTCAA CTCTCATTTT 55800  
TTTTTTATGA GACTAAAAAA GAAATCATAG CAAGTAGCTT TTATATCCCA GGTTTGGGCC 55860  
AAAGACTTGT ATTGTGGTTA AGGAATCTAA CTTAGTAGAA GGTGCACGAG CTGACATCGT 55920  
GAGTGGCTAA AATGAGAGAA AAAAAGAGAA AATCCTAATC ATACAGAAGC ACTGAACCTAC 55980  
TGCAGCTGTT CGTTAGTTAT TAATTTAATA AAAGCTTCTC CCCTTTAAAT CATGTGAGTT 56040  
TATAACTGGA AATAGGTCAA TAAAATTTCT GTCCACACT GCTGACAAGC GATGGACGCA 56100  
ATTAGCTTTA ATCCCACTGG AAGGTACTGC ACTCTCTCTG GGACCAGGAT ATGTAGAAAA 56160  
AAGCATTTCA AATATATAGG AATAACCAGA AATGTATACA GTATTCTCAA CTTGGGACCG 56220  
TTACTCTATA ATATAACGA AAGGGGTTTT CTAGTCAATC TCTGCTGATC TCCTGTACCA 56280  
AAGTTCTTCC CTTTATAAGT CTTGTACTAC CTTTACAAG AGGAAAAAGC TCTAGAGCGA 56340  
AAACACAGAA CACACTAAAA TCCCTTCCTT TCTCTTTACA ACTCAAGCCC CGCCTCCATT 56400  
TTGTTTCTGT TACTAATTTT TCTTCTGAAA AAATACCAAA TTTACACTGA AAGACTAAAA 56460  
TTCAACTTTG CAGACAACGT TTTAAAAAAT ACAATTCAGT TTGGTGATGT TGTTTTGCAG 56520  
TCTTACAATT TTAGCTACAT TTTAACTGAA CCAATTGTTT TGTTCAATTT ATGAGTTAAT 56580  
ACTCAGCAAG TTTGTTTTTT ACAAATAGTG TATTCCATTC TAAAAATGGA AGTAGCAGTG 56640  
GTGAACAAGA AAACAACCCT CTGAGTTTTG TCTATTTTCA GAGGAAGTAC TACTTTCTCC 56700  
AATTTTAATC ACAATTCATA AAAAAGAAAA ACCTAACTAG CTAGATCTTA AATATACAAA 56760  
TACATTAACA ATCTAGTAAA GCAACAGAAA AAGGTAAACA AACTAACCAG CCTATTTTTG 56820  
TCTGGAGAAA CCCCAACAAA CTGCTGGATT CCTTGGCCAT TTGCATTCAAG AAGTACCAAA 56880  
AACTAAATC CTTTTTACTA AATAATTTCT TCTACACGAG ACTTGTTTCC TCCACACCAC 56940  
CCTATCCAAA TTGTCAGCAT TATTCCAGAA TATAATCATT TAGTTTGAGA CCACTAAAAA 57000  
ACCCCGCAGT CAAAATACC AATTGTGGTT TTTCTGTAAG GAAATGGTCA GAACTACAA 57060  
ATTGTTATCC TAGGACACAG AACCAATCGA CCAAAGGAC TTCTGGAATA TGCTGCCCCC 57120  
AAGATTTAGA ATGCACAGGC AGAAATAGCA TACGCGGTCA CGATGTCCCT TAAGCCACAT 57180  
GACCTTCTTA CGAAAGCAAA GGCTTAAACT TATCAAATGA GAACTCCCCC TTTCTCTGAA 57240  
GTAAAAACAA GGCAGGGCAG CTGGAATTAG AGCAGCAGGG ACAGATCGGC TGTTGACTAG 57300  
TCAGAACGGG TCGTGGAATG CAAAGTCCCT GCGCTTCGC TGCTCCCCTT ACCGTGAGAA 57360  
GATCTGGGAG GGAGGAAAGG AGGAGAAACA CCCAGAATC CTGGTAGAAA AGCCCCTGGC 57420  
CTCGAAGATG GGCTCTAGGG AGACAGGGAG GGGCAGCTCC GTGTGTGATG ACCCTTTGTG 57480  
AACATGCACT CTGTGGCAGC TTCAGTCCA CCGAGGCTTT GGGAGAGCGG ACTACGGATG 57540  
CCCGGCGCGG CCCAGCTGTG AAGGCCGCGC CGGCGGAGAG GGTCCATGGC ACCCCCGCCG 57600  
GCTTCGGAAG CCCTTCCCTC TCCACCTCC GCGGGTCACC CCAGGAACCA GCGGCTCCCG 57660  
ACCACGCTCG CGCGGACCAC GGAACAGCGA CGCGCAAGCA GGTCTCTTTC GTCAGCGTAA 57720  
TCCCTCCGCA GAAAGCCGCG CACTAGTTTT AATCACGCCC CACCCCTGG CCGCTGGCGC 57780  
CACCTCCGCC ACTCGGGCGC TTTCCAGCAG CTTCCAGAAA CGTCGCCTCC CCAAACCCAG 57840  
CCACTCACAC ATGGCGGGCT CAGCAGCCAC CGGCCCGCC CCTCCTCGTC GCCGAGTCG 57900

FIG. 6.22



CAACTGCGTC TCGGCGCCACA GGGCGGACAG CCACGCCTCT GCGGAGGGCG ACCGGAAGTG 57960  
CTCACGTCTT CACCTTCCCC GCCACGCCAC CGTCCTTTCA GGCCCAGCGT GCAGCAGGAA 58020  
GGAGGACTCT TTTGCCGCGG ACTCAAGCCG GAAGCCGCCT TCCTAGTGGA GACGCGAGTG 58080  
GGGGAGGAGC AGTCCGAGGG GAACGTGGGT TGAACGTTGC AACTAGGGTG GAGATCAAGC 58140  
TGGAACAGGA GTTCCGATCG ACCCGGTACC AAGAAGGGGA GTGCCGCGG CAGGTAAGGG 58200  
AGAAGAGGGA GGGGTTTCTT TCCGCTCTCG AAATTGGGAA AAGAGACAGA GCTGGGATGA 58260  
CCTATGGGGT AGTCGGCGCG CTGAAAGGAT GGGCTGGGCT GGGACGGGGT TCAAGTGGGA 58320  
AAGGTTGATG ATTAAGGTAT AGAGTTGGAC TTACAGATCC GTTTGGGCGC AGAGAGGTGA 58380  
ACGCTGAAGA GAAACCAGAG TTTGTTTTCG TTTTCCAAGG AGCGTGGAGA TGGGCAGGGT 58440  
TAACGGACCC TCGCCTCCT TCGGCTTCTT AGTTTGGGTG TTGAACTCA CCTCCTTTGG 58500  
TCCTGTTCTG CTCTGATTCA AGACAGTTGG GTTTGGTACC TGACAGGGCT GGGTGCAGAA 58560  
AGCTGACCCT GTTCTCGGC TTCCAGGTCG GTTGTGGCCT CGCTTTTGAC AGTTCACGTG 58620  
CCGAGCCTAC TCGCTCTCG AGGGCGAGCT CAAATGGGTG GGTTTAAGGC CCCCTCTTCG 58680  
AACAGCTGTT TCCCTGGGTT TCTCCATTTT GCACACAGGA GTGTGAATTA AGTTTAATTG 58740  
AATACTTTT GCGATTCCCA GGGCCACCTT GACACGTTCA TTGTGCTATC TAACTGGGTT 58800  
CATGCTGGGC TAATAATTCA CATTAAAGGCT TCTGGAGTAT AAGTGGTTCA CAGAAGTATG 58860  
AAAAGGGGAT GTTAGAAGAA AGATGCTGGG GGTGAAGTAG AGTTGAGGAA GACAGAACTG 58920  
GAAAGCTAGG TTGGTTTAC AGTACAATGA GCTTTAGGTC ATAATACTAC CTTTAGGTTA 58980  
TATTGGGCTG TTTGGACGGA GTTTGCTGTA ATCAGGCTAG AGTAAATAGA GAATTTTAAA 59040  
CTAAGCATTG ACAGGCTCAG ACTTGTAGAG GCATCATTTT GACAGTGATA TGGAAGGGAA 59100  
AGAGGTAGAG ATTTGAGACC TTTCCAAAGA ACTGTCCACA GAATTTGGTG ACTTACTGTG 59160  
CGAAGAGGGA AATAAAGAAT AGGGAACAAC TCAAGACTTT CTAGTCTGTG TGTTTGAAG 59220  
GATGGAGACG CCCACATTTA AGTGAGATAT GGGAAGGAGG AGCAGATTGT TTTTGAAGGG 59280  
AGGAAGAGCA GTTACTTAGG GTCAAATTA GTTGTAATAAT CCCCCCGGG ATTTTGTATG 59340  
TAAGTCAAAG TGAATTGTAT TTGGAAGAAG AACTGGGGAG CCCACCTCTG GTATTTTTTT 59400  
TATGTCCCTC ATATGGACAA ATAAACCTCT GGTATTAAAT GAATTTTCTT TTGGGGGATT 59460  
CTATATATTC GGGATTTCAG CCACCAACCT ATCTGGTTTT TCCCGCTGAA ATGTTGGGTG 59520  
ATGGAATCAG GAGAGCAGAT TTGGAGACTC TTTATATTTT ATAATTGAGA GAGACAAAGA 59580  
GAAAACCGTT TGATTTGAAA AAGTTTTCTA GGTTCCCTCA GGTAGATGGA AATTTTCATC 59640  
AAAAACAGTT TATTCAAGGT ACATAGCCTA CTAGTTTCCC ATTTGAGAGT ACCGCAGAAT 59700  
GATACGACGT GTAGTGCTTC TCTACGCAGA ATGAAGTATA AAATTAGCAC CAAATAGTAA 59760  
CTTTAATTTG TCAGGTGCTA AACTTTTTAC ATGCTTTATC TCATTTAATT CTTAGAAGAA 59820  
ACTAATTTA CAAGTAAGT TCTGGACCAA CATCTGCAGG TACAAAGCCT GAAAAGCGTA 59880  
AGTTTGACTC CTACATAGTT CTCTTTTGTA AGTAGATTAT AAATAGAACC AGCCAAAGGT 59940  
AATAAGTTGT CTGTGCCTAA AAAGAAAGAA AAAAGTTAGC ATCAGTAGTT CTCACCAGAA 60000  
GGGGTGATTT TGCTTACCAG GGGACATTTG GCAAGTCAGG AAATTTTGG CTGTTGGATC 60060  
TAGAGGGTAA AGGTCAGTGA CGCTGCTAAA CATCGTCAGT GCATAGAACA GCCTTCACAA 60120  
ACAATTATTT GGTCAAAGAT ATTTGTAGTG CTGCAGTTGA GAAATTTCTG TCTTATGGTT 60180  
ATTTCTTCAG GAATAGGAAA TTAAGATTCG CCGATACTTT CTTTAAAAAG CAGTTTTATT 60240  
TTTGAAATTA TTCCTTGGCT TGAAAGGTTT GTGAAGTTTA TATAGCCGAA CCAGAATAGC 60300  
GTAATTAGAT TTTAAAGTGA ATTTGTAGCC ATCGATTCCC AGGAGATGGG TGTCATAGAA 60360  
TCATGGATTC TTGGATTTGG GAAAGACTTA TGCCTAGAAT TATTTTACAA CATTTCTGCT 60420  
AAGTGGTAAT TCTCCTCTGC CCTAAAGGTC TCCTGTATTT GATTTTCTTA TCATTGTGAA 60480  
CCCACAATTA AATGCTCTT AATTATTTT TGCTTACACT GAGCTCCGGT CTCTTGTAAT 60540

FIG. 6.23

TTTACTCTG TTAATGTGG TTCTGCACCA TAGGACTGCA CTCAAAACAA GCTTGCCACA 60600  
TATGTAATTT GTACTAGGAC AGTGTTTATA TTTTGTTC GATAACAAAA TAAGTTAAAT 60660  
GTGGTGTAAG TTAGATCATT TACAAATAAT AATTTGTTAG CAGCTTTTAA TAAGTAGTAT 60720  
TTTTCCAAC TGGTGAAGTA TTAATGTTGG TAGTTGAAAA CAATAGGAAT GTATGGAATA 60780  
TATGGTTCAC TGGTTCTTTT GTTCCTGTCA AATAGTGGCA CAATGGATCT GGGGTTTTTC 60840  
TCAGTATAAT GCTGGCATAT TTGTTTCAAA TTGTACATAG ACTCTAAAAA GTTAGGCTTT 60900  
CAAATCTGG TCAATATAGT TTGCTTTAAA TAGTAGCTGC CTCTACTACA AGTTTTATTT 60960  
AATTTGTTGA CAAATGAGTC TGCTATGAAA ACCGGTCTCTG TTGCCAGTCA CTACCCTCTG 61020  
TTCACAAATT TGCTGGGTTT ATAAATATAG GTATCATTTT CACTTCAAGA TTATAATTTT 61080  
AGAATATGTT TATTCTAGGA CATATAGCCC TCAAAATCTG CTTACTATAT ACGTCTTATA 61140  
AAATAGCATG GTTCTTTTTT ATAGTAAATA GAATTTTTAT TTAATTGTCT ATTGACTTTT 61200  
TTTTTCAGG GTTCATTGAA AAAATCCTTA GTGATATTGA CATGTCTCAA GTGACATAAA 61260  
TTAGCCAATG ACTCGGAATG ATGGATTCTC CGAAGATTGG AAATGGTTTG CCAGTGATTG 61320  
GACCAGGGAC TGATATAGGG ATATCTTCAC TCCACATGGT GGGGTATTTG GGAAAAGTTA 61380  
GTGAACTTAT TTTTGCCTG AGTGCAAGT TTTTTTTTTT TCTCTATTTT TGAGACTTAA 61440  
ATTCAATTTT GATGTTACCA GTTAACTTCT AAAAAATTGT GTCTCCACG GAAATCTTAC 61500  
AGTAATGGCG AAAGATTGTT TTAATGTGTT TACCTTCTG TGTTTTATTG ATACATGAAA 61560  
GTGGAAATAA AACATAGACC TTATGATTGA CTGTTCTTTG AAAATATGGT ACATAAATTC 61620  
TCCCGGGTAA TTGATGTTAC TTTTTCCTT GCAAATAAAA TTGATACTAT TCTTAACACA 61680  
TAAAATTTAA TATTTAAAC TATAACATAA TTCTTTTGG AATAATAGCT GTATTTAAAG 61740  
GCTTATATGC ATTTCTTTTG TTGCCATGT TAAAAATACC TTGTCAGGAT ACTTGTAATT 61800  
GAAAATTATA ATTTTCTG GTTACCTTTC CATTTAACTT TTAATATTTT GATATATTCT 61860  
AGGAATGTCT ATATTTTAAT TTGCTTTATT TCTCTTTTAG AATTTTGATT CAGCTAAAGT 61920  
TCCATCAGAT GAGTATTGCC CTGCTTGTAG AGAGAAGGGA AAGTTAAAAG CCTTAAAGAC 61980  
TTACCGAATT AGTTTTCAAG AATCTATCTT TTGTGTGAG GATCTGCAGG TAAAGTATTA 62040  
ATCTTATATA GTATATATAA GATTTTCTT TTTCTTTTG CTTTTTATT AATTGTTTTA 62100  
AAAGTTTACT CATTTTTTGT TTTTAGACT AGATTTTAA TATGTAATCT CAGTTTGTA 62160  
GTCTGTCTGG TATACAATGT TATTTTCCA CCTACCTTTA CTGGTTGCG TAAAGATGTT 62220  
CGTTTTTATT GCCATTTGAT TTGCGAGAGG AGAAAATACA TTTCAAGGTT TTTTCTTTT 62280  
TTTTAACCT TTTGGAGGTC CTTGTTAGCT ATTAGCATAT AGTAGTACT CTCTCATCTC 62340  
TTTGGTTTAT CTTTGCAACT GATGGGAAAA GTTATGAATT TCTAATGTAC CTGGAAGAGT 62400  
ATTTTGAAAA TTGGTTAGTC CAAAACCAAGT ATATATACTC TGAACATAAG AGAGTATAGA 62460  
ATCTTGTAAG TTCTAAAAGA TCCTTTTAGA AGCTCTAAAT CGCTTTTAGA ATTATAGTAA 62520  
TTTGTAACGA CTGGTACGGC TTTTATATAG CAGCTCATTA AATTCTGTAA TACTCCACAT 62580  
TTTATTGTAT TTGACAGTTT ATGAGACTGT CTCATACACT TTTAATTCTC AGAATTTTGC 62640  
AAGATTTGTA TTCCTATTTT ATGAATAAGA AAATAAATTG ATTCAGAGG GTTTGGGAAC 62700  
ATAAGATCCT GATACAGTGG CAGAGCTGTG GTTGAATAC AGACTTCTAA TTTCAGATCT 62760  
GTTTATTCCA GCAAAAAATT AGCAGTTCAT CAGAATTACC TGGAGTGCTT TTAATAAATT 62820  
TCTGAGTATC ACCCCCAGAT GCTGATTCAA TAGAGTTGGC CCAGAATTCT GTGGTTTTGT 62880  
AACATTTGAG GATGAGTCTG ATCATCATCA GCCAGGTTTG GAAAATACTA GACTAAATCA 62940  
CATGGTTGTT AATAGATACT TATGCTGGGT ATAATTTGAA GTAAAGTAAT CCCAGGCGTG 63000  
TCTACAAATA TAAATTTCTT TATGTTTATA TTCAGTAATT TTTTTATGA GTGTCACTGT 63060  
TTGGCACTGT TGCAGATACA ATGTTAGGAT ACAATAATAA AACAAAAATT TCTTGCCCTT 63120  
AAGGAAGTTA TGTCATAGAG TGGGAAAGAC AGTGAACAAG TATGTGTTTT TCTGTCAGGT 63180

FIG. 6.24

GATAAAAGT GCTGTGGAGA AAAATAAGGC AGTAGGGACT GGAATGCCAA AGTAGGGGGA 63240  
GTTTGCAATT TTAATAGGA TGGTGAGGGG AACGCTTCAA TGAAAAGTGC AATTCGAGCA 63300  
AAAGCCTGAA AGAGGTGAAG AGCAGTGAGC TTTCTAGGCA GGGGAAGCAA GTTCCAGGAA 63360  
GGCCCTGAGA GAATGGAGGC TGCCTGTCAT GTTTGTGCTA CTGCAATGAA AGCAGCAGAG 63420  
CGATAGAAGG TGGATCAGAA AAATAATGGG GGAGCTGGAC CAAGTAGGGT CTTATAAGCC 63480  
ATTGTAAGCT TTCTGGCTTT TACTATGGGT GAAACCAGGA ACCATGGCAG AGATGTTGGC 63540  
AGAGGAGTGA CATAAGTTGA CTTCAAGTGT AAAAGCATTCT CTGTGGCTGC ACTGTTGAAA 63600  
ATATATGTAA TGGGCAAGAC CTGAAGCAGG GAGATTAGTT ATAGTATAAT ATGAATTATA 63660  
TTTGGTCCTT GTCTATGGTT TCCGTTACAG AGCTAAAAGT CTTGGAATTT CCTGAATGAT 63720  
AAGAGTGTCC TGTATTTCAG AATGAGCCTG TTTGCTAACA CCGGGGTTCA TACTATTGTG 63780  
GTGACTTAGG ATGGAGCCGT AGATAGCCTC AGATGGGGCA AGTAGCTGGA AAGACCACAT 63840  
GATTAGAGAA TTAACGGGTT AGAACTTTTA GCCCCACGTA CAGGCCTCCA GGAAAGGAGT 63900  
GGAGGGGCTG GAGATCAAGC TGTATAAAAA TATCAAGATT TGGATTTAAT GAGTGGGTTG 63960  
CTGGGGGCTG GTGCCGTGTA GGAGGTGGTA TGCTTAGAGG AAGTGAAGC TTCATACCTC 64020  
TTCTGTCCCA TACCTTGCCC TACTCATTTT TCCATCTATA CCCTTTATAA TATCCTTTAG 64080  
GATAAACCAA TAAACATAAG TAAGTGTGTT TTTGAGTTCT GCGAGCTGTC CTTGCAAAC 64140  
AGTTATGCCC AAGAAGGGGG AGTGGGAACC TTTGTAGCCA GTCAGTCAGA TGTAAGTGGT 64200  
GCCTGGATGT GGGATTGGCA TCTGAAGTGG AGGGAGTCAT GGGACTGAGC CCTCAACCTG 64260  
TAGGATCTGA CATGGTCTCT AGGTAGATAA CATCCAAATG GAATTGGATT ATAGGATACC 64320  
CATTTGGTGT CCTCTGGAGA ATTGCTTGGT GTGGGGAAAA AGCCCCCACA CATCTGGTCA 64380  
CAAAAGTGTG CTGGGAGGAT AGAATATGTG AAAATTGTCA TAATCAAAAT GGAGTCACTT 64440  
GTGTTAAAAA AGAAAAAAA ATCCTGACTG GCCAGGCACA GTGGCTGACA ACTGTAATCC 64500  
CAACACTTTG GGAGGCTGAG GCAGGAGGAT TGCTTGATCC CAGGAATTGG AGACCAGCCC 64560  
ATGCAACATA GTGTGGCCTT GTCTCTACAA AAAAAAAT TTAATTAGC TGGGCATGGT 64620  
GGTGTGAGTC TGTAAGCCCC GCTACCCGGG AGGGGGACTA CGGGTGCACG GCACCATGCC 64680  
CAGGAGGTCC AGGCTGCAGT GAGCTGTGAT TGTGCCACTG CATTCCAGTC AGGATGACAG 64740  
AGTGTGAGAC CCTGTCTCTA TTAAGAGAAA AAAAAAGAC AAATAGATCC AGGAAAGGCT 64800  
ATGAAGAGAG AGCTTTCATG CATAAATACC AAAATATCTC AAAAGACTCT GCAAAAACCA 64860  
CACCTTGCA CAAAGGCCAT CATGAAATAC TTCTGAAATA CACAGAAAAT ACATCATGAA 64920  
ATAAATACAC AGAAATACT TCTGCAAGGA CATCTGCCCA GCAACTGCCT GGTCCATCTG 64980  
TGGACGGGTG TCATCCTTGT TATTGATCCT TGTAGCCAAG GGTAATTATC TCAAAACAAG 65040  
TATGTGATCC TCCTTATTTT CCTTTAAAAA CCTTTTGTCT TCCCTTACCT CCCTGAACAC 65100  
ACACAGTTTA CTATGGCATG TGTATTCCCA TTGGAATACT TTATTCCTGA ATAAATGTCA 65160  
CTTTCTTTT AGAAGCTTCT CTTTCTTTT TATTTAGATT GATAAGTAGA AAGGAAAAA 65220  
AGCTTTTTT CCTTTGGACT AGTTGAAGGC AGTTGCAGTA TTCTGGGGGA GAGGGTGGT 65280  
GCAGAGGTGT TGAGGCATGG TTGGAGTTTA TTTATACTTT GAAGGTAAAG CCAACAGGAT 65340  
TTGCTGAAAG ATTGGGATAT GGGGTTGGAA AGAGGAATCA AGGATAGTTC CAAGATTTT 65400  
GGCTTGAAAA ATTAGAAGAA TGAATCGTG AATTACTGAG CTGGGAAGAC TTGGAAGAGC 65460  
AAGGTTTTGG GGAGAAGATC AGGACTGTAA GAATAGAGAA GTCCTGTCC CCAGGAGTTA 65520  
GGTTTTTGGC TATTAAAGTT AGATGTACTA CATAGATTTT TAGTTGGTTT TTTGTTTTT 65580  
GTTTTTTTTT TTTTTTTTTT TGAGACGGAG TCTCGCTCTG TCACGAGGCT GGAGTGACAGT 65640  
GGTGCGATCT CGGCTCACC CAACCTCCGA CTCCCTGGTT CAAGGGATTCT TCCTGCCTCA 65700  
GCCTCCTCAG TAGGTGAGAT TACAGGCATG TGCCACCCAG CCCAGCTAAT TTTTGTATTT 65760  
TTAGTAGAGA CGGGGTTTCA CTATGGCCAG GATGGGCTTG ATTCCTGAC CTCAGGTGAT 65820

FIG. 6.25

CCACCCACCT CGGCCTCCCA AAATGCTGGG GTTACAGGTG TGAGCCACCA CGCCCAGCCC 65880  
GGAGTTTTGG TTTTGAAGC ATTCTTTTTC AAGTGATAAA GCAAAAAATA TATAATCAAG 65940  
AATTTTAAGT ATATACTTTG GAAATGTAA AAAGGAACAT GAGTAATTTA TTATTATTTT 66000  
TTTAATTTCT AGTCAGCAAT GAGAGCCCAG TGTACTTTAT GAAGTAGATT GGTTTACACC 66060  
AGGAGTGAGC AGACATTTTG TATGATGCAC AAACAAGGAA TGATTTTTTT GTTTTTTAAA 66120  
TGGTTAGGAA AATATCAAAA TAAAAATGC CAGAAAAAAT CAAAAGAAGG GCCAGGTGCA 66180  
GTGTTTCACA CCTGTAATCC CAGCACTTTG GGAGGCCAAG GTGGGTGGAT TCTCTTGAGG 66240  
TCAGGAGTTC GAGACCAGCC TGGCCAACAT GGTGAAAACC TGTCTCTACT AAAAATACAA 66300  
AATAGCCGGG TGTGGTGGCA TATGCCTGTA ATCCCAGCTA CTTGGGAGGC TGAGGCAGGA 66360  
GAGTCGCTTG AAGCCAGTGG CAGAAGTTGC AGTGAGCCAA GATTTGAGCC ACTGCACTCC 66420  
AGCCTGGGCG ACAGAGGAGA CTCTATCTCA AAATAAATAA ATAAATAAAT AAATAAATAA 66480  
ATAAATCAAA AGAAGAATAC CCTTTCATAA TATGTGAAAA TTAAATGAAA TTCAAATTTT 66540  
AGTGTTTATA AATAAAGTTT TACCGGAACA TAGCCATGCT CAATCATTTA TGTATTGTTT 66600  
ATGGCTTCTT TTGCATACAA CAACAGAGTT GGGTAGTTGT GACAGACTAT GTAGCTCATA 66660  
AAATCTAAAT ATTTATTATC TAGCCCTTTA TCAGTAAACT TTGCTGATCC CTGTATAAGT 66720  
CCTCTGAATC AAATTATTTT CAAAGAGTTC CGTTATAAAA TTTGGAGTTT ACTCTGCTGT 66780  
AAATTGCAAA GAACCATTTG GAAAACCTCT TTTAGTCAGG TATTACATT AAAATGTTCC 66840  
TTGATTTGTA AACACTAATA TTCAAGACTG GTCCAAAATT ATACCAAATT GAACTCTCA 66900  
AGTGTTTTTA AACAGTAGGA AGTTTTAACT TTTTTTTTTT CGTGGAGTAG TCTATCATTC 66960  
AGCGTTTACT TTGGAACATT TAATTAGTCT TTTTAAAAA CCCATGAAAT TTATAATAAA 67020  
AATTTTAAAT CATTAATGTT GAGTAATCAA AGAAAACCTT TTTTGTTC TCCATTTGTA 67080  
AAATGAGTAC ATTATTATTA TAATTGTCT TTGGCCATAC CTTGTTGATA ATTACTTATA 67140  
CAAGTATAAG AAGACATGGT ATGTTTTCTT TTTTCTATT TCACAAGAAT AAGTACAGGA 67200  
ATTTACTTAA GCTGCTCCAA AACTCAGTGA AAGAGACAGG ATTAGGTTTT TTTTACGATT 67260  
GGATTTTAAA TGATACTAGA TGGTTGCGCT GGGCTAAAAT ACTAATGCTT TGTGTATATT 67320  
TTTATGACTT TTTTGAAGAC AGCTTAAAG CTTTATTCTA GTTATAAAAA TGATACATGT 67380  
TCACTGTAAA TAGAAACAAG TCAGGTATAC AGAGATACAA ATATTTAGAA CATGTGGAAA 67440  
GAGGCAACAA AATTTTATAA AAAGAAAAAA GATAAAAATC TGAAATCATT AATTTATAAG 67500  
GGAAAAATCA GGGCAAGGAC AAATTATATT ACAGATTGGC CTATGGTGGG AGCACAGATT 67560  
ATATAGAGAA AAGTCAGTGA AGACACTTGC GAAGAGTGTG GGTGGAAATC ACTAAGTTTT 67620  
GCAGTCCCGG GGCCTCTTAT GGTTTATTAC TGTTTTGTTT TTTTTTTTTT TTTAATATGC 67680  
ATTCCTTTGG AACCAAGGGT TTATTATGTT TTGAATAAAG TAGAGGTGTA AGTAGGATGC 67740  
ATATACCATG ATCTTGACTA CTTGAGATTG ACAAAGGGTT TTCGTCTCAG GATTTTTTTT 67800  
TCTCTTAAAA AAATTTGTAT TAATTTTTAA ATTGTAAAAA AATTCATCAA CTTAACCATT 67860  
TTTATGTATA GAGTTCAGGA GTATTAGGTA TATCACTTG TGCAGCAGAT CTCTAGAACT 67920  
TTTTTCATCT TGCAAACTG AACTCTGTA CCCATTAAAC AACCATTCC CATTTTCCTC 67980  
TCCCCAGCT TCTGGCAACC ATTCTAGTTT CTGTTTCTTT TCTTTTTTTT TCTTTTGAGA 68040  
TGGAGTCTCT GTCGCCAGG CTGGAGTGTG GTGGCATGAT CTCGGCTCGC TGCAACTTCT 68100  
GCCTGCGGGT TCAAGCAGTT CTCCTCCCTC AGCCTCCTGA GTAGCTGGGA CTACAGGGGT 68160  
GCACCACCAT GCCTGGCTAA TTTTTTTTTT TTTTTTTTTT TTTGATTTT TAGTAGAGAC 68220  
GGGGGTTTCA CCATGTTGGC CAGGCTGGTC TCGAACTCCT GACCTCAGGT GTTCTGCCTG 68280  
CCTCAGCCTC CCAAAGTGCT GGGATTACAG GCTTGAGCCA CTGTACCCGG CCTCTAGTTT 68340  
ATGTTTCTAT GAATCAGACT CAGTACCTCA TATAACGGA ATCATACAGT ATTTGCCCTT 68400  
TTTGTGACTG GCTTATTTC A CTGGCATAA TGGCCTCAAG ATTCATCCAT GTTGTAGCAT 68460

FIG. 6.26

GGATGAATAT ACAGTTAGGA GTTCCTTTTC TTTTAAAGT CTTAATCTCC AGTTTATTTT 68520  
TGTTTATTTA TTTATTTTAT TATACTTTAA GTTCTGGGAT ACATGTGCAG AACGTGCAGG 68580  
CTTGTTACAT AGGTATACAC GTGCCATGGT GGTTTGTTC ACCTGTCAGC CTGTCATCTA 68640  
CGTTAGGTAT TTCTCCTAAT GCTATCCCTC CCCTAGCCCC CTACCCGCCG ACAGGCCCGG 68700  
GTGTGTGATG TTCCCCTCTC TGTGTCCGTG TGTTCCTATT GTTCAGCTCC CACTTACGAG 68760  
TGAGAACATG CGGTGTTTGG TTTTCTGTTC CTGTGTTAGT TTGCTGAGAA TGATGGTTTC 68820  
CAGCTTCATC CATGTCTCTG CAAAGGACAT GAGGAGTTTC TTACTTTTAA GGTTGAGTAA 68880  
TATTCCACAT TATGTGTATG CCACATTTTC TTTATCCATT CACCTATCTG CAGATGTTTG 68940  
AGTTGCTTTC ACTTTTGGG AATTGTGAAT AATGCTGCAG TGAATGTGGG TGTGCAGGTA 69000  
CCTTTTCAAG ATTCTGCTTT TGAGTTTTTT TTGGATACGT ACCTTTTAT GATGCTTTAA 69060  
ATACATATAT GCTATTTTAA AAGGATTCTC AGTTTCTGA CATATGATAG GACTTAGGAA 69120  
GTAATCTCAA AGCATCATGT TGACAGGTTG TTAGTTGATG GTGACTGCAG CTAGTTGGAA 69180  
AGTCAGAAGA ATCTAGAAGT TGTCATTTA TACTAAAGAA TTTCATAGTA AGTGCAGTAT 69240  
TATGAGTGTA ATGTTCAATT GGTAAGAG GCTATCTGAG GGGATTTAGT GCATTTCACT 69300  
TATCTGTTGG TGTGAAACGA ATCACCTTGA AACTTAGTCG CTCAAAAATT TTAATGGTGG 69360  
CTGGGCATGG TGGCTCACAT CTGGAACCTC AGCACTTTGG GAGGCCGAGG CAGGCAGATT 69420  
GCTTGAACCC AGGAGTTTGA GAGCAGCCTG GGCAACGTGG TGAAACCTTG TCTCTACAGA 69480  
AAATACCGTG GCAGGCGCCT TTAGCACCAG CTACTTGGGA GGCTAAGGT GTAGGATCTC 69540  
TTGATCCCAG GAGGCAGAGG TTGCAGTGAG CTGGGATCGT GCCACTATAC TCCAGCCTGG 69600  
ATAACAGAGC CAGACCCTGT CTCAAAAAAA AATTTTAATG GCTCCATTTA TTATTTCACA 69660  
TGATTATGTG AGTTGACTAG GGAATTCTTA CACATCACAC CATGTCAGCT GGGACAGCTG 69720  
AAATGTCCAC ATGGCTGGCA GTTGGTACTA GCTGCTAGCT GGAAGTTGAG TTCAAATAGT 69780  
CAGCCAGGGG TCTCAGTTAT TTTCCATGAG GTTCTCTCCA TGAGGCCAGC TGGGCTCTTC 69840  
ACAGTGTGAT AGCTGGGACT AAGAAGGAGT GTTCCAGAAG AAGGGCTTGT CCTCTTGAGC 69900  
CAGTGCTTAT CAGGCCTCTA TGTATATCAT GTGTGCTAAT GTTCCATCAA AGCTAGTCAC 69960  
AGGGCCAAGC CAACTCTGTA CAGTGTAGGG ACTGGCTGCA GGAGGGCATG AATTACCAGG 70020  
AGGTGTAGTT CTCTAGTTCA TAGGGAGGGC CATCAAGATA GTAGTCTACC ATACTTGTGT 70080  
AAAAGAAGGC ATTAATTAAC TATTATTATT ATTATTATTA TTATTTTGA GACAGGGTCT 70140  
TGCTCTGTTG CCCAGGCTGG AGCAGTAGAG TGGGGCAATC ATAGCTCATT GCAGCCTCCA 70200  
ACTCTGGGC TTAAGCAATC CTCCCATCTC AGCCTCCCA GTAGCTGGGA ATACGGGAGT 70260  
GTACTGCCAT GCCCACCTGA AAAAGAAGGC ATATTTTAAA AGCAGACCTT TAGTGTAGAG 70320  
GGTTCTTGAA TTTGTTATTT AAAATATTCT GGTAGTTTTT AAACCTAGGA AAGACCCACT 70380  
GATTCTTTTA GTGATATGTT TACATTGTTG TTTTGGCA TAAATTGTGT TAATGCACAG 70440  
TAAGATTTC TGAAGTCATT AAAATTCAGC CACTTGGACT CTAAACCCAA TAAAGATGTA 70500  
AAACAGCAGT GCTATGAGAT GCATATTCTG TTTCAAATA TAGGAAACAC AGAAATTACT 70560  
CTGTGCACTT TTAATTTGAA AATACTTTTA AAATGTGTAG TATAATGTAG TGTCTGTCCC 70620  
AAAAGAGTAA CATTCAATTAT AGTGTCTCTT TACGTTGTTG AAAATTTTAA ATTCACTTAA 70680  
CATTAGATTT TTATTAAAGC AAAAATATGT TTTCTTATT AGCTTACCCT TTTGTAATC 70740  
AGATTAAACC CTTGATTGTT CAAATTAACC TGAAGAAAAA TATTCTTTG GAGGCCAAAC 70800  
TTTTGATTAA GTAGTTGTTT GTCTCTAATT TTTTCAAATT TATGTGTATA AATATAACCT 70860  
GTCATCAAAT CAATGCTAAC ATTCTATACA TGTTTTTCAT GATATGAAAA CTATAAAACA 70920  
TGAAGTTATT TGAATTTGTG TAGTTTTTAT CATTTTATTT TTACTTTCCA GTGCATCTAT 70980  
CCTTTGGGCT CTAAATCACT TAATAACCTA ATTTCTCCTG ATTTGGAAGA ATGTCACACT 71040  
CCACATAAGC CTCAGAAAAG GAAGAGCTTA GAAAGCAGCT ATAAGGATTC ACTTCTTTTA 71100

FIG. 6.27

GCAAATTCCA AAAAGACTAG AAATTATATT GCTATTGACG GTGGAAAAGT TTTGAACAGC 71160  
AAACATAATG GAGAAGTATA TGACGAAACC TCGTCAAAC TACCTGATAG TAGTGGTCAA 71220  
CAGAATCCAA TTAGGACAGC TGATTCCTTG GAGCGGAATG AGATTTTGA AGCTGATACT 71280  
GTTGACATGG CTAATAACAA AGATCCTGCT ACAGTTGATG TCTCTGGAAC TGGCAGACCT 71340  
TCCCCTCAAA ATGAAGGATG TACATCTAAA CTGGAAATGC CACTGGAGAG CAAATGTACA 71400  
TCATTTCCCC AGGCTTTATG TGTCCAGTGG AAAAATGCTT ATGCTCTCTG TTGGTTAGAC 71460  
TGTATCCTGT CAGCTTTGGT GCACTCGGAA GAGTTAAAGA ACACCGTGAC TGGACTGTGC 71520  
TCGAAGGAGG AATCTATATT CTGGCGGTTG CTTACAAAAT ATAATCAAGC AAATACACTT 71580  
CTATATACCA GTCAATTGAG TGGTGTTAAA GGTTGGTACT AATATTTTAT TTTTATTAC 71640  
TTATTTATTC ATCTGGAGTC AGGGTCTCAT TCTGTCACCC AGGCTGGAGT GCAGTGGCAT 71700  
GATCATGTCT CTTGTCAGCC TTGACTTCCC TGGCTCAGGT GGGCCTCCCA CCTCAGTCTC 71760  
CCAAGTAGCT GGAACACAG TCGTGCACCA CCATAGCCAG CTAAGATAGT GAGATGGTGG 71820  
CCCCACTGTC TTGCCAGGC TGGACTCGAT TTCTGGGTG CAAGCACCTT TCCGCTCA 71880  
GCCTCCCAAA GTGCTGGAT TACAGGCATG AGTCACCATT CCAGCCTACT TGTCTTTAAT 71940  
TCTTAAAAAT ATTAATGTTG AGTTTGTCT CCCAGCATGT GGGAAAGATG TCATCCATTG 72000  
CTTCTGTTT CTGGAGGCCT GGGAGCAAGG AGCCCAGGAA CAGTATCACG AAGCTTGAGA 72060  
TAATACCAGT TACATTATCC TGACTGCCCA AAAGGCAGTT TTTTGT TTTT TTTTAT 72120  
ACTTTAAGTT CTGGGGTACA TGTGCAGAAC GTGCAGTTT GTTACATAGG TATACGTGTG 72180  
CCATGGTGGT TTGTTGCACC CATCAACCCG TCACCTATAT TAGGTATTTT TCCTAATGCT 72240  
GTCCTTCCCC AACCCCTCCA TTCCCCATCA GGCCCCAGTG TGTGATGTTT CCTCCCTGT 72300  
GTCCATGTGT TCTATTGTT CAACGTGAC TTATGAGTGA GAATATATGG TGTGTTGTTT 72360  
TTTGTTCTTG TGTTAGTTTG CTGAGAATGA TGGTTCCAG CTTTATCCAT GTCCCTGCAA 72420  
AGGACATGAA CTCATCCTTT TTTATGGCTG CATAGTATTC TATGGTGTAT ATGTGCCACA 72480  
TTTTCTTTAT CCAGTCTATC ATTGATGGGC ATTTGGGTTG GTTCCAAGTC TTTGCTATTG 72540  
TGATTTTTTT TTTTTTTTT TTTTTTTAA GACAGAGCCT CACTCTGTTG CCCAGGCTGG 72600  
AGTGCGATGG CATGATCTCA GCTCACTGCA ACCTCCGCCT CTCAGGTTCA AGCAATTCTT 72660  
CTGCCTCAGC CTCCCAAGTA GCTGGGACTA CAGGCGCCCA CCACCAGGCC CAGCTAATTT 72720  
TTGTATTTTT AGTAGAGACA GGGTTTCACC ATGTTGGTCA GGCTGGTCTT GAACTCCAGA 72780  
CCTCATGATC TGCCTGCCTT GGCCTCCCA AGTGCTGAAA TTACAGGTGT GAGCCACCAT 72840  
ACCTGGCCTA GGCAGTCTTT TTCAAACTC TAAGACTGTG CTTGTGTCTC AGGGTGTGAG 72900  
GATAATAGTG GTTAGTTTTA AGTGTTTAAA CTAAGTAAAA GCAGAATGAA GAAGTGAGTA 72960  
AAAATCACCC ATAATCACAC AACCTCCTAA GATCTCTTGG CACAATAAGG GATATGTTTT 73020  
TCATTTTATT CTCTGTAAAA TAGGATACTT ATGAACCCAC CTCCCAACAC AGGAAGAATT 73080  
AAACATTCC CAATAACTTA CATTTACCTA TGCCTTCCCT CCCATCCCAT TCTCTACCTC 73140  
CCCCCATAA GTAATCATT TCTGAAATGT GTTTCATCAT TCCATCTTTT CTTAGTTTTT 73200  
CTTACATGTG TTTATCTAAA CAGTATACAG TAGTCTCCCC TTATTGTAGT TGACTTTTC 73260  
TTGGTTTCAT TTAACCCGAG GTCTGAAAGT AGATGAGTAT AGTACAGTAA TATATTTTGA 73320  
GAGAGAGGGA GACCACATTC ACATAACTTT CATTACAGCA TATTGTTATA ATTGTTGTAT 73380  
TTTATTATTA GTTTAATCT TACTATGCCT AATTATAAAA CTTGATCATA GGTATGTAGT 73440  
TATAGGAAAA AGCATAATAT ATAAATGTT TAGTTACTAT CCAAGGTTTT AGGCATCCAC 73500  
TGGGGTCTTG GAAGGTATCC CTCTCAGATA ATGGGGGATG GATGGTACTG AACCTGTAT 73560  
ATACAATGTT TTTCCCTATA CATACTAAT TATGATCAAG TTTAATTAAG AGTAAATTA 73620  
ATGTGGGCCA GGTGCAGTGG CTCACATCTG TAATCCCAGC ACTTTAGGAA GCTGAAGCGG 73680  
GCAGATCTCA TGAGGTCAAG AGTTCGAGAC CAGCCTGGCC AACATGGTGA AACCCCATCT 73740

FIG. 6.28

CTACTAAAA ATACAAAAT.TGGCTGGCTA TGGTGGCACA CGCCTGTAGT CACAGCTACT 73800  
CTGGGAGGTT GAGGCAGGAG AATTGCTTGA ACCCAGGAGG TGAAGTTGA ACAATCACTT 73860  
GAACCTGGGA TCACGCCACT GCACTCCAAC CTGCCTGGGT GATAGAATGA GACTCTGTCT 73920  
CAAAAAAAAA AAAAAAAAAA AAAAAGTAAA GTAAATGTGG CTCAACATGT TGCTGTCAGT 73980  
TGGAACATTT GTTCTGTATC GTGTCTTCCA CCCACAAATT GAATGCTTTT TCCATCTTAA 74040  
CACTTATCAG GCACTGTGGC CATAACTTGA GCAGTTGAGA TGCAACAGCA AAATTAGCAC 74100  
AAATTTCTTT TTCTTTCTTC GCAGTTTCAT GGATAAGAGA TTTGTTCTTA GATCTCAGCA 74160  
ACCTCAGCAT ATGATTTTTT TCTTAAAGTT GAGAACTTTG ACCTTTTTAC TTAGAGAAGC 74220  
ATTTTACAGC TTCTCTTGG CATATCTGAA TTGCCAGCAT TACTATGCTC GTGCTTTGGG 74280  
GCCATTATTA AGTCAAATAA GGGTTGCTTG AACACAAGCA CTGCAATACC ATGGCAATAG 74340  
ATCGCATCAC CAAGATGGCT GCTAAGTGAA CCACAGGCAG GAGTGTAGAC AGCATGGACA 74400  
CATTAGACGA AGGGAAGATT CACGTTGCCA GTGGAACACA GCAGGACAGC AAGAGAGTTC 74460  
ATGATGCTAC TCAGAATGGC ATGAAATTTA AAGCTTATAA ATTGTTTCTG GAATTTTCCG 74520  
CTTAATATT. TCAGACCACG GTTGAGTTCA GGTAAGTGAA ACCATAGGAA GCAAAACACG 74580  
GATGAAGAGG GACCACTTCG TATTGCCTAA TTAGTTTGT TTTGATCTTC TGGGACCTTT 74640  
TTTTCTTGT GTAAAAATTT ATGGGGCTGT TTATAGTTGT GGCTCATTGA TTTTTCATTG 74700  
CTACATAATA CTTCCATTTT GTAAATATAA CAGAATATTC ATCTACCTGT CAGTGGACAG 74760  
TGGGGTTTTT TTGCCATTAT AAATGCTGCT GCTGTGACCA TTTGGGGGGC AAGTCTCCTG 74820  
GGGCACAGTA TGAGTTTCCC TTCTGTATAA CAAAGGAATG GAAAATTATA GACTTTCGTG 74880  
TCCAAATTTA CAAGATAATG ACAATTGTTT TCCAAAGTGG TTGTACCAAG CAATTCTCCC 74940  
ATTAATAGTG TATATAAGAG GTCTTCCTGA TCCATATATT CTTCTTGGTT TATTTTACAC 75000  
CTTTTGAGAT TTTTGCTATT TGAGTGGTAT AAAATGGTCT GTGATCTTGA TTTGCCGTTT 75060  
CCACATTTTG AAGAGGTTGT CGGCTCTATG TGTATATATT GCTCATATTT GTTCCCTCTT 75120  
CTGTGAAATG CCTTTTGTAT CTTATCCCTA TTTGTTCTGT TCTGTTGATT GTCACGTTTT 75180  
AATTGATTTG TATGAGTTTG TTCCTTGAT CATTGTTGCT AGAGTTACAT CAGATGTGTT 75240  
GCTGAATCTG CTCCAGTTT GCAGCTTGTG TTTTACTTT TAAAAACTG TCTTGATTTA 75300  
TAGGGAAGTC TTTATCTTTT CATTGGAGC TAGTAATGTT TGTGGCTTTT TAAAGAAAT 75360  
ATTACTATTC CCAAGGTCAG AAAATCATTC ACCTATATTT TAACTGAAAA GTTATAAAGT 75420  
TTTGCTTTTG ACATTGAAAT TTCTCATTCA GTTGAATTC ATATTGATGT GTGGTATGAG 75480  
GTAAGGATCC ATTTTTTCC CATTGCATA GCCAGTTTTT GTAGCTCCAC TTTATTTTCT 75540  
CACTTGATCT GCCATGCCAC CTCTAGCATG TATCAACATA TCATGTATGT GTGCAGCTGT 75600  
TCCTTAACTC TCAATTTTAT TCTCTTGGTT ACTTTGTCTA ACCCAGCACT CATACTTTTT 75660  
AAATTATTAT GGCTACCTTG TAGGGCAAGA ATCCTCACTT TTATTCAACT TCTTTTGAAG 75720  
TGTCTTGATG CATATTTTTT CTGATCTTAC TTGGCCATAT ATATTTTGGG GACAGATGTG 75780  
ACATCATACC AAGCTTTCTT TGCTTGACAT TGATAGATATT TTCTTATTCA TTAATGTGCT 75840  
AAAAATTTTG AGTTTGGTCA TACAGTCTTT TATATGGATC TTATACATCG TTTCCCTCTT 75900  
GTTAACCATT CAGGCTGTGA CTAGTTTTTG CTGTTGTGAA TTAACACCAG GACAAATATC 75960  
CATATATCTT TTGAATTAAT TACTGACTAG TTTCTAGGA AAGATATTAG AATATGAATA 76020  
TTAAAGGTCT TGCTGAATAC AGTTTTCAGA ATGGTTGTAC CAATATATAA TTCCATTTTC 76080  
ATTATGTAGA AAAAATACCT CAGTGTTTTT TAACCACCTT TGGTTAGAAC ATTCAAGACG 76140  
TTATGGTTTT GTTAGGTAAG AAATATTTTG TTTCAGTGTA GGTTTTCTTT GAGACTGAAC 76200  
TTTTTTGTGT GTGTCAGTCA TTTACAGTTT TTTGCAATTT TAAAAATTCA GTTTCTCACA 76260  
AGCATTTTGC CTTTGACTTT TCTTCTATTT CTGCTTTCTC TAATTACAGA AACCCAGTG 76320  
TTAAGTAGGT GACAGTTCAG TTGTTTGCTG CAGAAGAGCA GCAGTTCAAT ATTGGAATTA 76380

FIG. 6.29

ACTTTAATTT TATGTTTTTA ATCTGTTACT AATTTTTTAC AGAATAATTG TAGTTTTTAT 76440  
AATCTGGTTA ATTATATGTT TGAGCTGCAT TACTTTGCAA TGTAAGTTTT TTTTTTGGC 76500  
ATGGTCAAAT AACAAAAATT CTGGTTAATG CTTATTTTAT ATTACAGGAG AATCCAGATA 76560  
TTTCATTAGG GAAACATATA AGCAGAGTGT GATCAGGCTG TATGAATTAT TTATAAGAGA 76620  
TGTGAGTGAA AAGATCTATT TGTAGCTTAA GAGTAAGTAG AGTCAGATGC ATGTAGAGTC 76680  
TTTTATTCAA AATAATTTTC TTATTAATCT TGGATAGTTT CTTGTCACAG TAATTCCATT 76740  
TTGAAGATAA TAAATATTAC CATAAAGAAG TGATCAAAAA CATAGATATG TGTGCCCCAA 76800  
GGTATTTATC ACAATAGTAT TTATAATAGT GAAAAAGAA ACAACTAAAA TGTCTGGCAA 76860  
TAGGAGAATG ATTAATAAAG CGATGTTTCA GCTGAATATA GTGGCATGCG CCTGTAAGCC 76920  
CAGCTACTCA GGAGGTTGAG GCTGCAAGAT GGCTTGAGCC CAGGAGTTAA TGACCAGCCC 76980  
AGGCAACATA GCAAGACCCT GTCTCCAAAC ACACAAACAC ACACACAAGT GCTATGTTTC 77040  
AGTCACTGTA TAATACTAG CCAGATTTTT TGTGTGTTGT GTTTGTTTT TGTTTTTGTT 77100  
TTTTGAGAGA GCATCTCACT TGCCAGGCT GGAGTGCAGT AGTACAATCA CAGCTCACTG 77160  
CAGCTTGTAG AACCCTAACC CTCCTGGGCT CAAATGATCC TCCCACCTCA GCCTCCTGAG 77220  
TAGCTGGGAC TACGGGTGGG TACCACCATA CCCAGCTTTT TTTCTAAGAG ATAGGGGTTT 77280  
CACTATGTTG CCCAGGCTGG TCAGTTTTTA ATGAAGCACA TTTGTGTAGA CAAAGCAGGA 77340  
TGTGGAACCG GATAAACACT ATGTTGCCAC TGAAGACCCC TTCAAACCCC TCAAAAATGA 77400  
CATAGAAGGG AAATATGAGA TATTAGTTTG GGAAATAATT GTAACTTTAT TAAGACTCCT 77460  
TATAAATTTA TCTGTTCTTA TGACCTGGCT AAGTTCAATA AAAGTTACAC AGAGTGGAAT 77520  
AAATGGTTAG ACATCATTTG TAGTATAAGT AATTGCACAT AAGGAGGTAA CTTTAGCTGT 77580  
TTTAGAGATA GACATAGTAT CTGAAAGGTT AGTTATTTTA CTAGACCTGT GATTATTTGG 77640  
GTGAGAAAGG CTTTCACTGA GATTTTACCC ATTCAGTAAG TACTAATGAT ATTGTGCTGA 77700  
TAGCATATAT TAAGGGAATA TATGGTATAC CACAGAGAAA GAATTAAGGA AATTTTGTGT 77760  
TTTGCTTTTT GTCTGTTTGC AAACTTACT GACTCAGCTT TCATTCTTGG GAATGTGTCA 77820  
GTTTTCTGTG GGAAGATATA CATTGATGAG GAATTGATAA TGTCTCTGT ATTTCTTAG 77880  
ATGGAGATTG TAAAAAATT ACCTCAGAAA TATTGCGAGA GATAGAGACC TGTCTGAATG 77940  
AAGTTAGAGA TGAAATTTTT ATTAGCCTTC AGCCCCAGCT TAGATGCACA TTAGGTAAGT 78000  
AATTGGTAAA ACTTACTTGT ATTATACTCA TCTACCATAT AGAAATATGT ACCTCATAAG 78060  
GAAATATAAT ACTGTTTGAT TACCTTGGAT GATCATATTC TTGGGAGAGA GAATCTGAGT 78120  
AGTTTGACTT AGGAATCTAC CACTGGGTAA GTTATTGTAG GGCAGAGCTG TTCCATATAA 78180  
ATATGTAGGC TGGTGTCCA CCTCTTGAGA GTGGGTGCAG TTCTCAGAAC CAGGAGAATT 78240  
TTAGGGGGCA TATCATTAGT TGCTTCTCTA GTACGTTTCC TAGTAGACAG ATCTAGCATT 78300  
TTTAACCTCA ATTGTGCATT AAAAAGCACC GAGGGAATTT AAAAGTAAAT GCCAATGCTG 78360  
GGGCATTTGA ATTAGGATCT CAGGGATGGG GCTCAGGAAA TCAGTAATTT TTAGAAACCC 78420  
CACATGATTG TTATATGTAC CCAGGGTTTA GAATCTCATC TAAACCAACC ATAGTAATTC 78480  
TACTTCCCTA CCAGTGATTG GTTTAGGAAT GTCCTTGTGG TAGAGTTTTG GCCAGTGGAT 78540  
ATTAAGAGAA ATATGCTGAT GGCCTTTTGG GAAAGCTTCC TCGCCTTAG AAAGGGCACA 78600  
AGGATGGGAC CTCTTTGTTT TCTGTGACTT GGTTTTTGGC CTGTGGGAGT GGCCTGCAGC 78660  
AAGTGAGCTA GAGAGTCTGT CCAAACCTTT CTAATTTTTT TTAGTATTGC GAAAAGGAGC 78720  
TGCGGGGTTT TTTTGTGTTT TTTTGTGTTT AAAGGGCTTT TTGTTTTATT TTTCTTGAT 78780  
CCTTGATTA ACTCTTCTAT TAATGTTATA GTAGCAGAAT ATGATACTCC CTATTAGTAA 78840  
TAACCCATAT TATGTAAAT ATCAGTGCCT TCTAGTTTTT CTCTCAATGA GTGACATTTA 78900  
ACTTATATTA AAAAATGATA TTTATATTTT ATAATAAAAT CAGTTGTTGC TACTGATTTG 78960  
TCTAGCATGT ACAAAGACA CCATGCTTCC AGATCATTAT AAAATATGAT ATTTTATAAT 79020

FIG. 6.30



ATATTTACAA TATATTTATA ACATATTTAT ATACTTAGAA TATATTTTAT AAGGCTGGGC 79080  
TTGGTGGCTC ATGCTTGTA TCCCAGCACT TTGGGAGGCC AAGGCAGGCG TATCACAAGG 79140  
TCAAGAGATT GAGACCATCC TGGCCAACAT GGTGAAACCC TGTCTCTACT AAAAATACAA 79200  
AAATTAGCCG GCGTGGTAG TGTGTGCCTG TAGTTCAGC TACTCGGGAG GCTGAGGCAG 79260  
GAGAATCGCT TGAACCTGGG AGACAGAGGT TGCAGTGAGC TGAGATCACG CCATTGCATT 79320  
CCAGCCTGGG GACAGAGCGA GACTCCGTCT CAAAAAATGT ATATATATAT ATATATATAT 79380  
ATGTGTGTAT GTGTGTGTAT GTGCGTGTGT ATATATATAT ATCGGGAAGC ATGGCATCTT 79440  
TTGTACATGC TGGACAGCTT TTGACGACT TCTTTGACTC ATGCTTCTGC CCCCTAATT 79500  
TCACTTTTTT TCCTACATTT TATTAATAAT AATATATAAT AGTTGTATAT CTGCTTTATT 79560  
TTTCATGGAC TTATACATAC ATATTTATTC TGTTCTTATA AAAGTCTGAT TTTTCGTATG 79620  
CCAAATTTCT GACATTTCTT CCTCTAGGCC TGAAGAACTG TTGTAATTTA TGCATCAGAT 79680  
AGGCCCTCAG ATGGAATGAA TATTCTTTTT TCTTTATATC AAGGTGTAAT TTACATATAG 79740  
TAAGACCGTT TTTAAGTGTG TACAGCTCTG TAACCCTCAC TACAATCAAG ATATAGGACT 79800  
CTGTCACTCT AAAACTTCTC ACCAGGTTCA TCACCCCCAG CCACTGATCT GTTGAGCGAA 79860  
TACTCATTTT AAAGGAGCTT TTTCCGTAAG ATCCCTAGAG TTTAGATGGA AGGGCTTTTCG 79920  
TGGTGCATTT AGCAGATACC ATTTCCCTTC TAGACTCCCT ACTTCAGTTC CCAGTTGAAT 79980  
TAAAGAATGG TTTCTCCCCC AGCCTGAGTC ACTACCCTTC TTATCCCTGA TAATTATTTT 80040  
TGGAACAAAG TTACATCTTT TGCTCCACCT CCGCCATGGG CCTGGTTTTT TATGTAACAG 80100  
AAGGAATTTT TAAATTATTG TTTTGTGTAA TCATAATAAT TGGGCAAGCA TACAGCTCTT 80160  
TTCAGTGCAG GAGGATTCCT CTCTTGTTTT ACTGCCCAT CAAGGATAGG TGCTATATTT 80220  
TAGCTGAAGA TCTTACTAAT GAAATGCTCT GTAATCATAT AACTTATTTA AAGATGTGTT 80280  
TTGAGCTCTT TCATAATATT TTAATTCATG GAGAACTTTA TGTATTTTAG ACCTGAAGAT 80340  
TTTATATTGT CATTATGAAA TGTAATTTGT TTGCTTTTTT AGTTAATATA TAGTTACAAT 80400  
AGAATACGGA TTTAAAGGCT GATAATGAAT TACAAAATTG TGCTATATGA CATACTGTTT 80460  
ATGCATACAG TGTTGCATAT TTTCAATTTCT AGGATATTGA TTTGTATTTT TACTTACAAA 80520  
AAAACTTTTT AAAACTTATT TTATGGCTGG GCCCGGTGGC TCACACCTGT AATCCCAGCA 80580  
CTTTGGGAGG CCGAGGCGGG TGGATCACCT GAGGTCAGGA GTTCAAGATC AGCCTGGCCA 80640  
ACATGGTGAA ACCCTGTCTC TACTAAAAAT ACAAAAAATT AGCCGGACGT GGTGTAGGTG 80700  
CCTGTAATCC CAGCTACTCG GGAGGCTGAG GCAGGAAAAT TGCTTGAAAC CAGGAGGCAG 80760  
TGGTTGCAGC GAGCAGAGAT TGCGCCATTG CACTCCAACC TGAGCAACAA GTGCGAAACT 80820  
CCTTCTCAAA AAGAAACAAA AAAACTTTTT TTAATGTTTT TGTTCAAAAG TAGCAGTGAG 80880  
ACTATCCCGC AAAGGTGACT ACTAAAATAG CCTTTGTAAC TACTGATATT TATAGAATAT 80940  
GCTTAGGGTT AGGGTATAAC TCGCTTGAT TATACTCATC TACCATGTAG AAATATGTAC 81000  
ATCATAAGGA AATATAATAC TGTTTGATTA CCTTGATGA TCATATTCTT GGGAGAGAGA 81060  
ATCTGAGTAG TTTGACTTAG GAATCTACCA CTGGGTAAGT TATTGTAGGG CAGAGCTGTT 81120  
CCATATAAAT ATGTAGGCTG GTGTTCCACC TCTTGAGAGT GGGTGCAGTT CTCAGAACCG 81180  
GGAGAATATT TAGGGGACAT ATTGTTAGTT GCTTCTCTAG TACTTTTCCC AGTAGACAGA 81240  
TCTAGCATTT TTAACCTCAA TTGTGCATTA AAAAGCACCG AGGGAATTTA AAAGTAAATA 81300  
CCAATCATAG GGACATTTGA ATTAGGATCT CAGGGAAGGG GCTCAGGAAA TCAGTAATTT 81360  
TTAGAAACCC CACATGATTG TTATTGCTTA GGTAAATAACA CCTACTGTCT ACCTTGTTGGT 81420  
CCTGCCAAGG TGA CTGTTCC TGGCCATGTT CCAGGCAACT GTAGTTCCAG GCTAGGGGGA 81480  
GAACTGGACC ATGGAAGTGA GGCTCTGTCC AGGGTAGGGG AAGGGATGGA AGGTGACTGT 81540  
TCCTGGCCAT GTTCCAGGCA ACTGTAGTTC CAGGCTAGGG GGAGAACTGG ACCATGGAAG 81600  
TGAGGCTCTG TGCAGGGTAG GGGAAGGGAT GGAAGGACTC AGTCTCTTGG GCCAAATCGG 81660

FIG. 6.31

TAAGGCAGCA TCTAAGCTCC TCTGAGAATA GGAAGGAGAG CAACCAATTG GAAAAAGAAT 81720  
GGGAAACATG TAGATTCTCC TGCTTACCTT ACTTTCCAGT CTCAAAGCTG GAAGCCAGCA 81780  
TTCAGTGTTC AGTTATTTTC AATGACAACA AGATTCAAAT CTTCAGTTGT AAAGTTGTTA 81840  
AAGGAAAGGA TTAGACTGAA AAGTTAAGAA GAACGGTAGA TGAAGAGTCC AAAGAGTTGA 81900  
GGCTGGTCAT TTAACCATTG TGTGGCCACG CCCTCTCCAC AGGTGGAACA AGATGATCAG 81960  
AATAGAAATG GCCAATTCTG ATGTGTTTCT ACAGTGTTC ACTGATTACA TTTTAAACA 82020  
TCTGTAGCAA ACCATTTCCA TAATTTTTTT TTTTTTTTTT AGAGACGAGG TCTCGCTCTG 82080  
TCACCCAGGC TGGTATGCAG CGGCATGATC ATAGCTCACT GCAGCCTCAA ATTCCTGGGC 82140  
TCAAATGAGC CTCCTGCCTT AGCCTCCTAA GTAGCTTGA CTACAGGTGT GTAGCACCAC 82200  
TCTCAGCTAA TTTATTTTCT TTTATTTTTT GTAGAGATAA TGCCTCGCTA TATTGGCCAG 82260  
GATGGTCTCA AACGTTCTA GAACTGGTT TTAGGTTTCT AGAGGCTGGC AGCAATTCTC 82320  
AGAGGTAACG CAAGCAGTCT TCCTGCCTTG GCCTCCCAGT GTGCTGGGAT TACAAGGTGT 82380  
GAGCCACCAC ACCTCATCAA TTTTGTGTTT AATATACTCT AAGGCTTATC ATAGTTCCGA 82440  
GATCTTTTTT TTTTCTCTGA GAAATCTAGA AAGATGGAAG ACAGTATGGG TCTTTTGTGG 82500  
ATTTTTGTC CTAAGAAATT TTCATAAATG TCTGCCAAGG AAAAGGAAAG AGATCAAAGT 82560  
GGTAATTAAT TCTTTAGGAT GGACATTTTT AGAAAAATGC TTTATAAACT TCCCCTCTCC 82620  
CAACTCTGAG TGAATTATTG TGTCACTCTG TATTAACACA TATTCATGCT GTAAATATAG 82680  
TAAGAAAAGA CAATAGTTCA CAATTTTGGT TTAGTTTTTG CCATTATTGA TTATGAGCAG 82740  
TAATCTTCC TTTTCTTTTT GAAGGTGATA TGGAAAGCCC TGTGTTTGCA TTTCCCCTGC 82800  
TCTTAAACT AGAAACCCAC ATTGAAAAGC TCTTCTATA TTCTTTTTCT TGGGACTTTG 82860  
AATGTTGCA GTGTGGACAC CAATATCAA ACAGGTTAGT TTCTTTTGT TTTTAAATG 82920  
GGTCTCTTA GTTCTCCAC CACTAAGGT AAGAGAACA TTTGAGCACC AGACACTACA 82980  
GTTTGCTTGC TTCTTTAAAC TGAAGGGTC AAAACCTCAT CGTTTGATAG ACTGCTAGTA 83040  
GGATATTTCC TAAGGAGTTC TTCAGTGGGA AATAGGGACG ATGAGAGGAA TAATACACCT 83100  
CCCTCTCCA GAGTCCTTGC TGAGTAGAAT ACCTCTCAGA ATGCCATGAA ACTGTAGGCA 83160  
TTTTGTGTTA TTCCTCTATT AGAAATGAGG GGTGTTGCTT GTTACTTTA GGTTCCTAAC 83220  
ATTATAGACA CTAGTTTTAG GCTCTTGGAG GCTAGCAGCA ATTCTCAGAG GTAATGCAAG 83280  
CTTCCCCATT TCTTCCCGTA GTCCTGTGAA AGACCAGCCA CCTCCAGAAG CCTACACATG 83340  
AGTCTTCTCA GCCATACTTT CTGCTTTTCC TAATGCCTCT CAGCAGCGTA TTAGAAAGGC 83400  
CATGATCGAT GTACCTGTTA CCTTCAGGCT TTGCATAAGG TGTATATGAA ACATAATGAA 83460  
TTTCGTGTTT AGGCTCAGGT CCCATCCCCA GGTTACCTCT TTATCTTGA GACACTTCTG 83520  
GTCCCATACA TTTAGATAA GAGATATTCA ACCTGTACCC ACCACGTAAG GAGAGGAATA 83580  
GGTTTAGAA GAGGAGTCAG GGAGGCAAGG TATTCACAGA GGGATATTCT CACTTGGTCC 83640  
ATACCTGAGA AAGTTGCTGG CTGGCAGTTA GGAAGATGAC CAGACTGGCT CAATTGTTG 83700  
TGTATCAAA TTATTACAAT AGAAATACT CTTTCCACCC CCCCCGCCC TTTTTTTTTT 83760  
TTTGAGTTGG AGTCTCGCTC CCGTCACACA GGCTGGAGTG CAGCAGCGTG ATCCCGGCTC 83820  
ACTGCAGCCT CCACCTCCTG GGTTAAAGCG ATTCTCCTTC CTCAGCTTCC TGAGTAGCTG 83880  
GGATTACAGG TGTGTGCCAC CACGCCCGGC TGATTTTTGT ATTTTAGTA GAGACAGGGT 83940  
TTTGCCATGT TGGCCAGGCT GGTCTGAAC TCCTGACCTC AGGTGATCCA GCCACCTGAG 84000  
CCTCCACAG TGCTGGGATT ACAGGTGTGA GCCACCATGC CTAGCCACAC TTTTCTTTAG 84060  
CTTAAGTGCT TAAGTTAGAA AACTTGAAGT CTCTCTAAGT TACTCAAGTA AAATGTGAGA 84120  
TAAAAATATT ACTTTTGAAG GCCGGGCACA GTGGCTCACA TCTGTAATCC CAGCACTTTG 84180  
GTAGGCCGAG GCGGGTGGAT CACGAGGTCA GGAGTTTGA ACCAGCCTGG CCAACATGGT 84240  
GAAACGCTGT CTCTACTGAA AATACAAAAA TTAGCCGGGC ATGATGGCGG ACACCTGTAG 84300

FIG. 6.32

TCCCAGCTAC TCGGGAGGCT GAGGCAGGAG AATAACTTGA AACCCGAAGG TGGAGGTTGC 84360  
AGTGAGCTGA GATTGCACCA CTGCACTCCA GCCTGGTCAA CAAGAATGAC ACTCCGTCTC 84420  
AAAAAAAATT AAAAAAATT ACTTAGATAT TCATTATCTA AATATGAAAT CCTTTTATAGG 84480  
TATTTAAGGA GTAGTCAAGG AGAGTTCAGT CTGGGAGGAT GCTCCAGGGA ATGCAGGCAA 84540  
CAAAGGTTTT GTTTTTTTTT TAACTGGTTA ACTCAGATCT ACTAGAACAG GGTAAGGGAG 84600  
GCCACAGAGT AGACACCATG AGCAAAGCTA ACCCTCCTGA GTTGAAAAAA TTATGGACGA 84660  
GAAGTTATCA TTGAAATTAA CTGTTGGCAG ACATATCCAA AGAATATCGC AAGGATTTGG 84720  
TCCCTTTATG CATCCTGAGA CAGATGAATG TGTGGAATGG CAGCTGGTGG GCAACAGAGC 84780  
GATATTGGCA TGGTGGTGAT ACAGGGAAAT AGTTTCATCG TGTTAAAAGC CATGGAACAA 84840  
AGATACATAA TGGCTGCTCT GCAGAAAAAT CCACGTCCCC TCTCCAAAGG GCCTGTTTTA 84900  
CTCTGATGTA AAAATTGGGT CAGATAAATT TTCATATTAA GCTTTTTGTT GAGTAAACTT 84960  
TTGTAATAGT CCCCAAACT CCCACTAGAA CAGGGTGAGA ATTAACGTTT TATTCATACC 85020  
TAGGACTTAA ATAATTTAGT GTAAGCAAGT GAGTATGAGA ACACATCTGT TTCCAGTCTT 85080  
CTATCATTGC TTTATATAAA TTCTCTGGTT TTCTCCTCAC AGTAACTCAG TGAGGAAGAT 85140  
CCTAGTGTC TCATTTGGCA CGTATGGATA TGACAGCTTG AAAGGGGTTA GATTGATTCC 85200  
CAAGATGACA CACTGTAAGT GGCAGAGTCA GGAGACACAC TTAGGCTCTT CTGGCCTCTA 85260  
AGACTTTCTT GCTCACTGTG GTATACTCCT TAATCACTAC CTGGGTTTTA AATAATATAA 85320  
ATAACCTTGC TGATTAAAAT CAGCTTAATT GTAGCTTCTC TGGAAATCCAT ATCTTAGTTG 85380  
TTTGACAGTT TTCGGTTGAG TGTCTTCTGT GTGTTAGGAA CTCAGGCACT GGAAATAGTG 85440  
TATCTTTGCC AAATTTACTA ATTAGGTAGA GAGATAATAC ACGAACACAT AATAGAGGTC 85500  
CAGTGACTTC GTAATTAATC TGATCTTTGG GCTGCTTAAC GTTAGCTTTG AATGCAAGAT 85560  
GTAAATGCG TTTTAGAGAT ATATAGCACA AACTGTGAGA GCTCAAGGGA GGGAAGCCAC 85620  
TAGCCGCTTT TGTTTGCTTT TTTGTTTTTT AAAAATAATC TTACTTTGTT CTAAAAATAA 85680  
AAGTAGTTAT AGAGGGAAAG CTAAATGAA GTGACGTTTT CTAAATATG TTTAATATG 85740  
TCATACTTA AAACCTATTT CCACTTAATC TGAAGGAGAA CTGTCCAGCA AATTCCTTTG 85800  
TTTTTGTA GCTGTTTTTA GTGCCAGCAT AAGGGCTTTT TACTCAACTT GGAAAGTGTA 85860  
ACCCAGAGTC AGTTAAAAAC ATAGTCTTCA GAGGCAGATC TCAGGTCTGT TATTTATCAC 85920  
TGTA CTCTAT GTGTCACTTT CCCCATCTGT AAAATGGGGA TAAGAATAGC ACCTGCCTCT 85980  
GAGAGTTGTT TGGAAGATGA GTGTCCAGTG CCATGCCCTT TGCACATAGT TTAAGTGTC 86040  
AGAAATGTCA GATGTCATGT GGAGAATTAA CACTTACTTG CTGAGACAGT CTCCTTTTTA 86100  
TAAACTAAAC AGTAGGAGCC TTTACATAAC AATTATCTTT GAAAAATTAA GAATTTAGCA 86160  
GAAATCAGTG CATTTGTTGA TATCTTTATG TTGCTTTGCT TTTAAATGT TAACCTCCCT 86220  
GACTACTGAT GTTTTAAACA GACAGTGCTT CCTCACAAGA TTTATAAGTA TTTGCTATTG 86280  
TTTAGAAAGG AAGCTTGAT CTCTTAAGTA GCTGCTCTTT AAATTACAAA TATTTTATT 86340  
AAAGTGGATG CAGTTGAGGT TTAGTGTACA TCTTAAAGG TCATCTTTTT AGATGGCGTT 86400  
GCTCTCAAGT ATTCAGACTA AAGTGCAAAT TTAGAACTTG TGTAACCTGT GAAAACAAAA 86460  
TTTGTTTACA ATTAATGCTG TGTGTGTGTG TGTTTTTTTT TTAAGGATTA AAAAAAGTTA 86520  
AGTTGTATGT ATTCCTGATT TTATGTTTGG AAACATCCCC TTTTCATTTT TGGTTGTCTG 86580  
TAATGGCTAG CCAGTTTGAG TTATTTGAGT AAGGGGTGAG CTCTTAATAA ATTTGACAAC 86640  
CTTAGAACAG TGGTTCTTCA CTAAGGGCTA TTTTTCCTCC CTGGGACAT TTGGCAACAT 86700  
CTACAGACAA CTGGATGCCG TTA CTGGCAT CTGGTGAGGA GAGGCCAGGG ATGATGCTTA 86760  
ACATCCTACA GTGCACAGGA CAGTGCTTCA CAGCAAAGAC TCTCTGGTGA AAAATGCAGT 86820  
GATACCATTG AGGAACCCTG TCTTTTTTTC TTGCTTCATC TCATAGTTGA AAGATATGGG 86880  
AAATTAACAT GGAGCATCTT CACAGAGCTT CTTTACTAGA GGTAGGGAGG AACATTGCCA 86940

FIG. 6.33

TATTAACATG ATTTGGGGAA ATAAGAAAGT ATGAATCACG AAAAAGGGGA GGAATACTTT 87000  
TAGACATTGG TTAAATTAA TGAAATGCA TTAAACGTTA ATGAATTTGT TATGTCATTT 87060  
TTTTATAGGC ATATGAAGAG TCTGGTCACC TTTACAAATG TCATCCCTGA GTGGCACCCA 87120  
CTTAATGCTG CCCATTTTGG TCCATGTAAC AATTGCAACA GTAAATCACA AATAAGAAAA 87180  
ATGGTATTAG AAAAGTGAGT TAAAATTGTC TTATAATTTT TAGTACAAAA TGAAGGTGGA 87240  
TTTACATTTT TCTTAATGTG TAGGATTGAA AATGGTGACA ACAACTTACC TTTCTGAAAT 87300  
TTGAGTTAAC ATATATTTCT GGGTTGCCAG CTGCCTCGCT CTATCTGGCC AGTGAGCCCA 87360  
CTGTCACGGT GAAGCCACTG AAAAGCCAAC TTAGGCTGAC TCTCTGGCCC CACTCTCCTA 87420  
GTGTCTTTCC TTCTTTTGC CTTTTTCTC CCTTTAAGGA TATCAAGCTT CAGTTTTTCT 87480  
CTCCTCTGCC AAGTGTATGG AGTTTCTAGA ATTCTGGGAT TTCCTTAATC AGATTTCAAG 87540  
AACTAAGATG ATTCAAAGAT AAGCCACAGG CTCATCTCTC TGAATTTCCA TCTTCTCCTA 87600  
GATCTCAGCA TGCTAATTCC TCATCATCTT GAAAGCTATC TAGTGGCCTT GAGCAGATAT 87660  
ATTTTCATTG TATTTTGCCA GCTTTTCTGT TTGTCTCAG TTGGGGAGGT TGGTCAGCAT 87720  
TACCTTTTCC AGTATTACCA GAGAACCATC TGTTTAACT CACAGGTCAG TTCCATCTCA 87780  
GGCCGTTTCC CTCTGTCTCA TTAATGCACT CACACATGTA CACAACCTCT CTA CTCTTCA 87840  
TTTTCAGTCT AATCGTACAT TAAGGAAATG TTTTGAGGTC TAATTTGATG TAATAAGAA 87900  
CCGGGAACAT TAACCTTTAT GCCCTTGAAT GTGCCAGAAA CCCTTCAGAA TCTTTCCTAA 87960  
AGGTTTATTC TCATTGAAGT AATAAATCCT CAGTTTATCA GTGCTTACAG GCTCAAAAGG 88020  
GAAAAAGGGC AGTAGTCCCC TGTTCCCTCC TCCAGGTATC TACTTTAAAC CTTCAAATTA 88080  
AGGTAGTATT TACTTTTACT TTTCAAATTG ATGTGCCTAT TCTACCGTAA TGCAGTCTGT 88140  
TCTCCTTTTA TAGTAATTGA GACTAGGGT CTCACACCAA CACCTGGGCC CCATCTCTGT 88200  
TTAGCCTTTC CCTGTCTTT CAATGCAATT GCGTATTGG CTA ACTCAGT ACTCGGTGTT 88260  
TGCATTGTTA TTAATATACA TGTGTTATTC CCTCTTCAGC CAAGCAGTAT ATATAGTTAG 88320  
GTTTCACTTT TACAATTCTT ATTTTCCGG GAATTGTTAT TTGCCTTGTT TTCATTGTGTT 88380  
TTATTATGTA CTGTGAGTTT TTGCCAAATA CTTTAAAGAC TTATTAATAA ATTTTCAATA 88440  
CTCAGATGCT TCACAGTTTT TACTCTGTT CCTCTCCCCT TTTTTCCTG GAACTCTTTC 88500  
CTGCCACCTT TCACTCTTTG CTGCAGTCTG CGCTGGTTC TCTCTGGGCC TGCAGCATAG 88560  
GGTGCTCTTT ATTATGTACA CACTTCCAGT CACTATCGTA GTTTTATAGCC CAAGGCCTCA 88620  
TCCCCACATT CTATCACATC TGTTGCCCAT AAATATCCAG TCCTTTAGGG GTTCTCTGGG 88680  
AAAAATAAGC TCTTCTTGT CATCAACATA TGCACCTCGT AGTACTCATG TCTTCACTTT 88740  
GCCCCTTCTG CTGGGTAAGG TGCCACTTCT CTGTTTGCTT TCTGTCCTCT AAATATTTGA 88800  
CTTCTTATTT GCTTATTTTC CTTTCTTGT CCTTTTGGAC TCATATCTTT TTGCCCCCTC 88860  
ACTATTATTT GATAGCATTT GTGTAGGAGG GCGAAGTGG AAGGAAGAGG AGGTGTCTGT 88920  
ATCTGTCTGA AGATTACAGA AGTCTGTAAT CTGTCTTGGC TGCCAGGTGT CAGTTTGTAG 88980  
ATGTAAATGT TGATGATGAG GTGAGGAGAA GAGCAGCAGA GCATGGGGTC TGCCATCCTG 89040  
CCTTGACCA TGGCCTGCTT TAGGCTGCTT GGTGTATATG ATTTTATCTA GCTGTTTATA 89100  
CCTGCTTTTT CCTGTGCCCC AGCACTGAAC ATAGACTCGT ACCATTGTTT TGTGTAATCT 89160  
GTAAATTGGT TGCACGTCAG CATATATATT TTTTAACTAT ACAAATAAGT TGCTTCCCTT 89220  
AAAGATTCAT GCTCTGATCT GGAAATGGAT TCATTAGGTA AAAGTCTTTT AATGGAAAAT 89280  
GTGTTTGTAG TTCCAGTGGG CCAATTTATG AGCAGAATTT ATAATGTGGG CATTTCTGT 89340  
TTTCTTCAAA AGTAAATTGA ACTAGTGTAT GAAGTTTAC TTAATTTTA AATGCCAAGG 89400  
TCTTTATATA AGTCCTTGT GTTTTTTAA TTTTGAAATT TGTATAACTT GATTTGTTT 89460  
TGCTAATGG AATTTAGAAA TAAATTTAAT ATAGTTTTTA GGGCTAACCT AAAAGTAATT 89520  
GGGTTTCATCA TGGTGTCTA TGTAATTTAA ACATATAGAA TCCTAAAAAC TAATTAAGTT 89580

FIG. 6.34

CCTTGGACAC CTTATCTCAC ATAACCCACA TCTCTAATGT CTCCCCATTG GGAAAAGAGT 89640  
CCATTGATAA ATCAGGTGAA TTATGCCTAG CGGGCCCAAA TCTGCTACTT TTCTTTAAGT 89700  
TGTTTAGGAG TTACATTGAG ACCATGGTGA CATGGAGCAC CAAGAACTTA GAATCAGATT 89760  
TCATTTTACT TGACAACTC TTGAAAGGTC ACTGCCACAG TCTCTCTTGA GTGCAAGGCT 89820  
ATGGCTATGC TTTGTAGCAC AGGGACGCGA TATTTCTCTG CTATCTTTGG GTAGCAGAGG 89880  
TTAACACAGC TCCCTTGTGC TTTCTTTCTC TCTTTTCTAT TTTCTTTTCT TTTCTTAAGG 89940  
ATAGATCTTT AAATAGGAGG AGTTTAACCC CATGTTAGGT GAATTCAAAT GGATCTTAGC 90000  
CTGATGTCTC TTGTTCTCTT TTGGTCCAG TTTGGTTAAT TCCTTTCATC CAATTTTCCA 90060  
GTGGTTGAGG GAGAACCTAA CTTGCTCTCC TCGACTCTGA GCATCATCCT TCACTGACAG 90120  
TTCAGGCATT GTGGGTAGGA AGAAGTCTGA GAACAAAACC TAGGGATAAA GTTTAGTAGA 90180  
GATGGGGTTT CACCATGTTG GCCAGGTTGG TCTCGAACTC CCGACCTCAG GTAATCCACC 90240  
TGCTTTGGCC TCCCAAAGTG AGGCTGGAAA TAAGACATGC TGAATTGTA AGTAGGACAC 90300  
TAGAGTCTAG GGGAATCAAA GAGGAAAATG AACAGAAAAG GGAAGGGGAA GGATATTATT 90360  
TGATTGACTC CAAGATGCTA CTGTTTGTA GTTTTACCAT TTAAAAATA TGCCATTAAG 90420  
AAAGAAATGC TGGCCGGGCA TGGTGGCTTA TGCCTGTAGT CCCAGCACTT TGGGAGGCTG 90480  
AAGCGGACAG ATCACCTGAG ACTAGGAATT TGAGACCATC CTGGCCAACG TGGTGAAACC 90540  
GCATCTCTAC TAAAAATACA AAAATCAGCT GGATATGGTG GCACATGCCT ATTGTCCCAG 90600  
CTACTCAGGA GGCTGAGACA TTAGTACTGC TTGAACTGGG GAGGCAAAGG TTTCACTGAG 90660  
CAGAGATTGT GCCACTGCAC TCCAGCCTGG GCAACAGAGT GAGACTGTCT CAAAAAATA 90720  
AAAAAAGA AAGAAATGCT GCTTATTTAA CTGTGTTCTG TCAATGTAA GGTGTATCCC 90780  
GACTTCAGAG ATGTTAACA ATGGGAAAAA ATTTGGAATT CATTAGGCAT TTGGAACCTA 90840  
CAAAGTTTCG GCCGGGCATA GTGGCTCATG CCTGTAATCA CTTTGGGAGG CCAAGGCGGG 90900  
TGGATTACCT AAGGTCAGGA GTTCGAGACC AATCTGGCCA ACATGGTGAA ACCCATCTC 90960  
TACTAAAAAT AAAAAATTA GCTGGGTGTG GTGGCATGCG CCTGTAGTCC CAGCTACTCA 91020  
GGAGGCTAAG GCAGGAGAAT CGCTGAACC CAGGGGGCGG AGGTTGCAGA GAGCTGAGAT 91080  
CGTGCCCTGC ACTCCAATT GGACAACAGA GTGAGACGCC ATCTCAAAA CAAACAAACC 91140  
AAAAAAAAA AAAAAATTC ATAGTTACAG AAAGTAGTAT GGAGGCCATA CCGAGATTTT 91200  
CGACATGGTA GTAAACTCT GCATTATGGC TCTGTTCTGC ATCATCTCTG TTCTGCATCG 91260  
TTTCACTCCA CATCAGACCC TGGATAGCTT TGGTGTACTG GTCGATCTTG TGGCAGTAAG 91320  
GCTAGTGTA TTAAGAGGAT ATTTTAAAC TTAACATATA ATTGCTCTAG TTGTTGTCTC 91380  
TTTTTTGCTG GTTAAGAAAA TCAAATTTCT ATCCTATCTG AATCTCATAG CAGACTTTGG 91440  
AGATTTCTGA CAAGTCATTT CTTACTACCT AGGGGAATGT ACTTGACTC AGCTAGAGTC 91500  
TGAGTATCTT CTACATCCAG GGAATTGGG TGAGTGTTGA TTTTGGTCTT GGCAGTTTTT 91560  
ACTTTTATTA ATTTGCAAAA GAATAGAAGA CTTGGAATGT ACAAGAAGCA TAAAAATGTG 91620  
TCAGGTGGTT TTACATGCGT TATTTATCAC GTTAATATGT CTTAAGATAT TTTCCACGTG 91680  
TAACTTATG TAAAGGCAGG AAAGTATGTA GATTTCATAT TCTAGGGATC AAGAGATTGT 91740  
TTTAGTAACT AGCCTCAGAA AGTATCTTGA AAGGTATTAT ATAAGGTCAA GGAACATAAT 91800  
ATTAGTAAAG AGTCAGGCCA GCGTGGTGG CTTATGCCTG TAATCCCAGC ACTTTGGGAG 91860  
GCCAAGGCAG GCAGATCACT TGAAGTCAGC AGTTCGAGAC CAGCCTGGCC AACATGGTGA 91920  
AACCCTGTCT TTAATAAAAA TAGTAGTGTG TGGTATGGTG GCGCATGCCT GTAATCCAGC 91980  
TCCTCAGGAG GCTGTGGTGG GAGAATCACT TGAGCCAGG AGGCGGAGAT TGCAGTAAGC 92040  
TGAGATTGCA CCACTGCACT CCAACCTGGG TGACAGAGCT AGTGTCTGTC TCAAAAAAAG 92100  
AAAAAAAAA AGGTCAGATA GGTGCCTAAA GCCTGTGTGT CTCGCTATGA GAATACATCT 92160  
CAAGTTTAC TGTGGTTCAT TGATTGAGAC ATGTAGTTCA CATTTTAACC TGTCTGAAAT 92220

FIG. 6.35

GGTAATATGT GAAATTGATG TCATGATATA GTTTAATTGG CAGCATGTTT TCATAGTGGT 92280  
ACATTTTATA ATTAGTGAAA TCTTAGATTT GATGAAATAG ATATGATTTT TTAAAGTGGG 92340  
AAAGTTTAGT GTTATAGACA GTTTGCAGGA CTTTTTATTT TGTAGGTACT TAAATTTTGA 92400  
GGACTTAATT ATTCTCTAAT AAAGTGATTG ACAAGGATTA ATGTATAAAT TATACCTTGT 92460  
CAGTCTGAAC AATCTGCAGT TTGGACATTG ATTCAAATTC ATTTAGGCTG AATAAATTTT 92520  
GATAAACTAA GTAAGTTTTG ACAGCTATTT AAATATTGGG AAAGGGGATA TTCAACATTT 92580  
TTCTTACATC CTGAGAGCTT TGTTAAATTT AGTTATTTGA GACCCATTGG GTTCTATTTT 92640  
CTGGTTCAGC ATGTTGCTGT AATGGTAAAA TACAATTTTG AAATTATAGT TGTCTTGAAG 92700  
TTAATAATAA ATTGACCAAT ATGTTGTATT TTTTCTCTA CTTAGTTACA AATTGAACCT 92760  
TTCCTAAGTA GAACTTTTAA TTTGACAGGC CCCCTTTGCT TCCTGAGGTA ACTGAAATAG 92820  
GCCAAATTAA TGCTTTTTTG AATATCTTAG GTTTGTTGCT TTCTTTCACA TGTTACCTAC 92880  
CCCACTTAAC AAAAGCAATT AATCTCAGCA CTTGATGCCA AAGAAAATTC TAAAAGGTCT 92940  
GGATTTTTTC CTTGGATTTT ACAAAGTAGC TACAATGGGA CTTTAAAGAC AAAGCTGCAT 93000  
TGCTGCTTAC AGAGCAATTT TTGTTTAATG GTCTGTGTTA GAGTCATACT GCATGATGAC 93060  
TTCCAATGT CTGGGATACC ATTCTGAAAA GGGTTTAGTG TTACATACTT CTTAGAGAGA 93120  
GTTCTCCATT TCTAATTAAG GCACACATCT GGAGGTGCTC AAGAAAAATT AGTGCAGTTA 93180  
GCCTTGAAG TGTTATGTGT GACTAGTTCA CTTGAGACAT CTTTGTATA ATCAGACACA 93240  
TGGCATTAAA TTTATTTAAC TTCTCTGCT TTTCTCTCCC ACAGAGTATC TCCCATATTC 93300  
ATGTTGCACT TTGTAGAAGG CTTACCACAG AATGACTTGC AGCACTATGC ATTTCAATTT 93360  
GAAGGCTGTC TTTATCAGAT AACTTCTGTA ATTCAGTATC GAGCAAATAA TCATTTTATA 93420  
ACATGGATTT TAGATGCTGA TGGTAAGTGT TTAGAGGTTT TCTTTAAGA TAATTGGCAT 93480  
AGAACTAAA TTCTAGCATG TGGGGACTTT TTGGTTTTG TTTTATAAAA AAAGACAAAC 93540  
TTTGTCTGA CTCTTCTCT CTCCATTCTC GCCTTGCCT TCTGCCCTC CTCGCATCTA 93600  
TTAAAGTGA TGGTTTTAGT ATCCTGTCTC ATTTTTCCT TTCTTACAT CATGTATTAT 93660  
AGGTAAACAC ATGCGCATGT GTGTATTCT CTTTAGACA AAGGATGAGA TTACTIONGT 93720  
TAGCTCAGTT TTTTTTCCC TACTTAACAT CTTTGCTTT ATTTTITAGA CATATTTCTA 93780  
AGACTATTAA ACATTAGACT TACGTAGCCC TTCTGTCATT GTGAAATACA TAGTTTACTA 93840  
ACAGCTACCA TCAAGATAAA GCCTTTATTT AAATAATTAA ACTTCTTAGT GGAAAGCTAA 93900  
GTAAGCACAG TTTATGGATT TTGGGAATTT TTGCCTTGA TTTGTCTGAT ATGGTAAAAT 93960  
ATTGAGTTTG TTTTCTCAT AATGTTCACT TTGTCTTGA CAAGATAACT CAATCCCCTT 94020  
AAAGGGTTGT ATCAAGCCAT TGATAAGGGC TCACCTTGAT ATAACCATTT TCTGTTATTT 94080  
AGACACTCTT TCACACTTCC TATTTTCCTC CTGGGGATGG TTTGAATGGA TGACACAATA 94140  
CCATATTATA AAAGCACTTT ACAAAGTGA ACTTATGTTA TAAATGTAAT TATTACCTTA 94200  
AGGTTTTACC CTGTTTCAGA TTTGAGTGGA AGTAGTTCTT TACAATACAA AACAATTAT 94260  
TTTAATTTT TTTGCATTTT AAAGAATGAT CAATCCACTT CAGGTGCAGC ATGGTTTCCA 94320  
ACCTGACAG CATGGAAGAA TCATTTATTT AGCTTCTAAA AATGTGCAGG CTGTACCCTA 94380  
GACCAGCCTT GGGGATTAGG CCCAAATATC AATGTTGGGT GTTTTTGGTA TTGGTTTTTG 94440  
GCCCCCTAC CCGCCCTTCC TTCTTCTGTT CCTCTCTCTC ATTCTCTCTC TCTCTCTCT 94500  
TCTCTCTCTC CTTCTTTGCT CTTTCACTCC TTCTCTCTCT CTCTTTTTTT TTTGAGACAG 94560  
CATCTCACTA TATTGCCAG GCTGTTCTCA AACTCCTGGG CTCAAGTGAT CCTCCTGCCT 94620  
CAGCTTCTG AGTAGCTAGG ACTACAGGCA CATGCTATGG CAATACTGTT TTAACATTG 94680  
TTTTCAAGGC TCCCCAGGTG ATTCCAGTGT GGGTCATGTG GTAGAGAACC ACTGACACAG 94740  
GCAAACAAAG GATACATAAA GTTGCTATT TAATGGGTAG GTGCAGGTAG TAGATAAGAG 94800  
TGTAGCCACA TAAACCACAT GCTTAGTGAA CGGTTTTGTT TTGTGTGTAT GTGAGGGATT 94860

FIG. 6.36

AGCATCTCTG AGTATATTTT GTTTTCCCTT TTGAACTTA TCAGAGAATT CATATGTCTG 94920  
TTATGTGACT AATGCTCACA TTAATAAAG TTATGTGACT TTTTAAATT CATATGTCTT 94980  
TTTAATTCAT TTATTCATTC ATATGTCTGT TATGTGACTA ATGCTCTCAT AAAAAAGTA 95040  
ATGCTCAGTT TACTTTTTT ATATCAGATC ATATATATAT GTTTTTTTTT TTGAGATGGA 95100  
GTTTTGCTCT TGTGCCCAG GCTGGAGTGT ATTGGCGCAG TCTGTCTCA CCACCACGTC 95160  
TGCCTCCCGG GTTCAAGTGA TTCTCCTGCC TCATCCTCCT GAGTAGCCGG AATACACGCA 95220  
GGCGCTACCA TGCCCGGCTA ATTTTGTATT TTTAGTAGAG ACAGGGTTTC TCCATGTTGG 95280  
TCAGGTTGGT CTTGAACTCC CAACCTCAGG TGACCCACCC GCCTCGGCCT CCCGAAGTGC 95340  
TGGGATTACA GGCATGAGCC ACCGCACCCG GCCATATCTT ATATTTAAT AAATATTTTA 95400  
ATTTGGTCTG TAAATTTTTC TTTTGGGGA ATGTGTTTTA AGTCTGTGTT GAGTCCTAGA 95460  
CATTTGTTGT TCTCAGATAG TCACTAGTGA TACCTTAACA TTAACCAGCC TGTTGGCAAC 95520  
TAAATTGGCC TGAAGTGACA ACTAAGGAAA GGTCTCTTTC TCCTTTCTTA ATCTTTGCAT 95580  
TCCTTAAGAT TAGTCTTTG TAGGAAGGCT TTGAAGTCTG GTGGCAAGTA CCCTTTATCC 95640  
CTCACAATCT TAAGATAAGG TCTTTCTGAG CATTAAAAAG TGAAGTGGG AGATATGTCA 95700  
AATGAGTTTT CTGTGTGTGC TCTGAGAAAT CTTTTTTTCA AAAAAGGATA GATGTAAGT 95760  
TATAAGGAAA AGAGAACTG AGCGCACTTT CAATATTTAA GTAAGTGTCT CTAACATGTT 95820  
TTGCAACATA AATGATGAC CACTGTGTTG GTCATTACTT CTCTACTGCT AAAACAATGT 95880  
TTTCTAAAAT AATATACTCC TTAGAAAAAA ATATAGTGCT TTGGGTGTGC ACTGTTGTAA 95940  
TCCAAGGAAT AGGAAATGTT TTGTAGTAAG TGCGATGGTG TTTGACATCG TGATTTATTA 96000  
ATTTATCACA TTTGGTTTCA TAGAAATAGA GTAAGCTACG TATTTGCTGT GCCGCAATTA 96060  
CCATGACATT AACTTGTAT CTATTTCTGT TTCATAGATG TGATAGATATT GATATATACA 96120  
GTGGAAGTAT GGATTGTTTT GATAAGTTTC TAATGAAAGT ACAGATATTT GTTGATTATT 96180  
TATTAAGAAA GGTTGTTACT CATCCAAGCC CGTGTTAGC TTTTCCCAA TTATCATGTG 96240  
GTAGTAAGTA AATGTAAAG AAATATACCC TCCCTTAACC CCACACCACC TGTTAGCACC 96300  
TAGCCACCTT CCTTACTTC TCAGCCGTAC TTTTGTATT TTTTGTGT AGTGGTAAAA 96360  
TATAAATAAC ATAAATTTA CCATTTTAAC ATTTGTAAGT GTACAATTCA TTGGCATTGA 96420  
ATACATTGTG TGCAACCACC ATCACCATCA GGACTTTTTT ATCAACCCAA ACAGAACTA 96480  
CTCATTAAC AATACTCCG CATCCTTCCA CCCCAGGCC CTGGTAACCA CTATTCTACT 96540  
TTCTGTCTCT GTGAATCTGT CTATTCTAGA TACCTCATAG AAGTGAATC GTACATTATT 96600  
TGTCTTTTG TGTCTGGCTT ATTTTACTCA GCATATTTTC AAGATTCATT TGTGTTGTGG 96660  
GATGTAGCAG AATGTCATTC CTTTCTAAGG CTGAGTAGCA TTGTATGTAT TATCCATTTA 96720  
TCTGTTACGG ACATTTGACT ATTGTGAATA ATGCTGTTGT GAACATTGGT GGACAAGGAA 96780  
CTGAAAGTCC CTGCTTTTCA TTCTTTTGG CATAAACCTA CAAGAGGAAT TGCTGGGTCT 96840  
TAACGGTAAT TCTGTGTTA ATTTTGGAC GAAGTCCAG ACTGTTTCCA CAGCAGTTGT 96900  
ACTATTTTAC ATCCCCACCA GCGTTACACA AGGATCCAA TTTCTCTACA TCCTTGCCAA 96960  
CATTTGCTAT TTTCTATTTT TTTTAATAA TATCCATCCT AATGGGTGTC TTTTTTTTTT 97020  
TTTAAAGGAA TGGTTTAAAC AGGTTACCTT CTTACTCCTC ATTCATGCTT TAGTTGACTA 97080  
CATAAGGACC CCTCTCCCTA TTGGCACCAT TGAAATTGTT CAGGCAAAAA TAACTGCCAG 97140  
CGACACACTG CTTTAAGTAA TGGACTTTTC CCAAGTTTGT TATTAATATT TCAGTATTTG 97200  
GTAGTGCATC CTAAGTCTAG TTTTAAACT CTTCCCTTGT CATCTATCAT CTCATTCTCT 97260  
CTTGACAAAT GTGAAAATGG AAGCTCAGAA ATAAAAAAG AATTAACAG AATAGTGATC 97320  
CTTCAGGTAA CAAGCTTCAT TTATCATGAA AACATATATG TATGAAACAT TCTGTTTTCT 97380  
GATGTTATTG GATAAATTAG GTGATAACCA AATTCTAAGT TCCAAAAAT AAATATACTC 97440  
TATCTAAGGA CTTTAACATG GCAGACAATG GTGACAAGGT CAAGAACATG TTTAGAGTC 97500

FIG. 6.37

TTCTCCTTTG GTCGGTATTC AATGATACAA CAGTTGAAAA GGCCAGAAGA AAGTTAACCT 97560  
AGGATGGTGG TTTTGAATA TCTAACTTTC ACTTCTTTCC CATCTCCAG GAAGTTGGCT 97620  
GGAATGTGAT GACTTAAAAG GCCCATGTTC TGAAAGGCAC AAGAAATTTG AAGTTCCTGC 97680  
TTCAGAGATA CATATTGTTA TTTGGGAAAG AAAAATATCC CAAGTGACAG ATAAAGAAGC 97740  
TGCCTGCCTT CCACTTAAAA AGACTAATGA CCAACACGCT CTCAGTAATG AGAAACCAGT 97800  
ATCTTTAACA TCGTGTTCTG TGGGTGATGC TGCCTCAGCT GAAACAGCCT CAGTAACTCA 97860  
CCCTAAAGAT ATATCAGTTG CCCCTCGTAC TCTTTCACAG GACACAGCTG TAACTCATGG 97920  
AGATCATTTA CTTTCAGGTC CAAAAGGTTT GGTGACAAT ATTTTACCTC TGACACTTGA 97980  
AGAACTATC CAGAAAACAG CCTCAGTTTC ACAGTTAAAT TCTGAAGCTT TCCTGTTAGA 98040  
AAATAAACCT GTAGCAGAAA ATACAGGAAT TCTCAAAACC AATACTTTGC TATCACAAGA 98100  
ATCACTAATG GCTTCTTCAG TATCAGCTCC ATGTAATGAA AAGCTTATTC AAGACCAATT 98160  
TGTGGACATA AGTTTTCCAT CCCAAGTTGT AAATACAAAC ATGCAGTCAG TACAGCTGAA 98220  
TACAGAAGAT ACTGTAAATA CTAAATCTGT GAATAATACT GATGCTACTG GTCTTATACA 98280  
GGGAGTGAAG TCAGTAGAAA TTGAGAAGGA CGCTCAGTTA AAACAATTCC TTACACCAAA 98340  
AACTGAACAA TTAACCAG AACGTGTAC ATCTCAGGTA TCTAATTTGA AGAAAAAGA 98400  
AACTACAGCA GATTCTCAAA CCACAACATC TAAGTCATTA CAGAATCAGT CTCTGAAAGA 98460  
AAATCAGAAG AAGCCATTTG TGGGAAGTTG GGTAAAGGC TTAATAAGCA GGGGTGCTTC 98520  
TTTTATGCCA CTCTGTGTTT CAGCTCATAA TAGAAACACT ATAAGTATT TACAACCTTC 98580  
AGTTAAAGGG GTAAATAATT TTGGTGGCTT TAAACTAAA GGTATAAACC AGAAGGCCAG 98640  
CCACGTATCC AAGAAAGCTC GTAAGAGTGC AAGTAAGCCT CCTCCCATCA GTAAGCCACC 98700  
AGCAGGCCCT CCATCGTCTA ATGGCACAGC TGCCACCCA CATGCTCATG CTGCTTCAGA 98760  
AGTTTTGGA AAGTCTGGAA GCACCTCATG TGGAGCTCAA CTCAACCACA GTTCTTATGG 98820  
GAATGGTATT TCTTCAGCAA ACCATGAAGA CTTGGTGGAA GGTCAGATTG ATAACTTCG 98880  
TCTAAACTT CGTAAAAGC TAAAGGCAGA AAAGAAGAAA TTAGCTGCTC TTATGTCTTC 98940  
CCCGCAAAGC AGAACAGTTC GAAGTGAAAA TCTAGAACAG GTGCCCCAGG ATGGGTCTCC 99000  
AAATGATTGT GAATCAATAG AGGACTTGTT AAATGAGCTA CCATATCCAA TTGATATTGC 99060  
CAGTGAGTCT GCATGCACCA CTGTTCCCTG TGTTTCCCTG TACAGTAGTC AAATCATGA 99120  
AGAAATTTTA GCGGAATTAT TGTCTCCTAC ACCTGTTTCA ACAGAGCTGT CAGAAAATGG 99180  
GGAAGGTGAC TTAGGTATT TGGGAATGG AGATAGTCAT ATCCCACCAC CAGTACCAAG 99240  
TGAATTCAAT GATGTTTCCC AGAACACACA TCTGAGACAG GACCATAATT ATTGTAGCCC 99300  
CACCAAGAAA AATCCATGTG AAGTTCAGCC AGACTCTCTG ACAAATAATG CCTGCGTTAG 99360  
AACATTAAAC TTGGAGAGTC CGATGAAGAC TGATATTTTC GATGAGTTTT TTCCCTCCTC 99420  
AGCATTAAAT GCTTTAGCAA ATGACACATT AGACCTACCT CATTCGATG AATATCTGTT 99480  
TGAGAATTAT TGAATTAATG CTTGTAACT TTTTTCATAT AATATTTATT ATTATTAGAA 99540  
GAACTTACAA TGTGTTTCCAG TAGTGTAT ACCTGGACT TGTGTAATTA CTTGTGTAAT 99600  
AACCATGAAC AAAATGCAAG GTTTAACCTT TGGTCTGCC CATGAAGCAT GTAATCTTTC 99660  
TTACACATTA AATCACTGA ATGTGTTCTC CTTTTGGTT TCATTTTGT CTTGTGAGAG 99720  
TATGAGGATT TCAAAATGTT AAAGATGAAA AGTGGCGTCT AGTTTCTGAC AGTTTGTACA 99780  
GTTGGATGCA TTACATTTTT AGATTGAAG TTTTGTTAT GTTAGTGTA TGAGTGATCT 99840  
TTGTGGTGGT TTTCTTCCC TGGAAACCTG TTGCTCGTGG CGCTTGCCC ACGGTGCCC 99900  
AGTTCTTGTC CTGTGTCCAG ATATGCAGAC AAATGAAGGG TGAAGAAGAA GAAGAGGAGC 99960  
TTTATTTAGT GTTAGAACAG CTCAGAAGGA GACCCACAGT GAGCAGCTCC CCTGTGTCGG 100020  
CGGGCAGGTC GTCCCTCAAG TGTTAGCTC TCAGCAGAGA AAAGGCCCTG GAGAGGGTGA 100080  
CTCCTCTCAG CTCTCAGCAG AGAAGCAGCC CTGGAGAAGG TAGCTTCTGT TCGCAGGCAG 100140

FIG. 6.38



ATTGTCCAGA GGTCCCTGCTG CTCTCAGACG GGGCCCTGGA GAGGATAGCT TCTATCCATA 100200  
GGCAGGTTGT TCTGCCGTCT CTACAGGTCT CTGAAGCTCT TAGCAGAGAG GGTAGCTCCT 100260  
CCCTGTTGCT GGTCTGCCA CCCTCTGCTC AGTTCTGGCT GAGCCTGGGG CATTTTACGG 100320  
GCCTCGGGGG AGGAAGTGCA TACTTACTGG CCTGGAAAAG GCACCAGTTC CCACTCCTAC 100380  
AGGTGGGACT GGCAGCCTGG CCCTCAGCCT TCAGGCCCTC CCTGTTTCATG GCTTCCAGGC 100440  
TTACCCCCCT GCTTTGATCT GAGAGCTGGT GCCAATAGCA GGGAGAAGCC AAGCTGCAGA 100500  
GGCAAGCACT TCCGAGCCTG CAAAAGCAGG CCCCCAAAAG TGCAGGGATG CCTGAGTCTG 100560  
CACCCGCACC CAGGAGGGTG GAGATCTTGC CTGCTCCAAG GCTGCAGCCG GAATGATAGC 100620  
AGGCTGACTG GAGCACCTGC CACCATCATT AGTTCAAGAG TTTATGCAGA TTTAAGTTGT 100680  
ATACGGTATA TGAATGTGTG ACAGTTTTCC TTATGGTTGT GTGGCCTTCT GTAAGAGCCT 100740  
ACGCCTGTTT GTTACACCGG TAGAGTGCTG TGGAATGTAA ACTTCCCTA TGCACTTAT 100800  
CTCCTTTATC TCTCCATACA GAGGAGGGCA AGAAACCTTG TTAAGTGAAC TTTAGTAATG 100860  
TTAAGTGATC AATAAATCTA TAAATAAATG ATAGCAGAAA AAAGTTACCT GTTTTGTGA 100920  
TGATGTACAA ACTTTACATG TTATCACAAA TACCATCTTT CTTCCAAGA CATTTACTTC 100980  
TGTAACCAAA GTGGGACACC ATCTAACAGT TCTGTTTTGG GAGAGAGTAA TAACCAAGTGC 101040  
TTGTGAGGCT TGTTAGATGT TGGTTGTGAT ATATGAGATA GATGTTATTT CATTAGACC 101100  
TCAACATTCC TGTGCGTGAG ATACTTTTAT CACATCTTAC AGATAAGGAG ACTGTACTCA 101160  
TTCAGTTGTG GAGCTGAGAT TGAGTAGAGT GGCTATTACA GCAGTTGAGT GCTGAGCTTA 101220  
TCAATATATG TTCCACTCCT CAGGCTTCAT TTAAAGTAGG ATGCCCAAAC AGCACCCTG 101280  
CCGTAGAGAT TTGAGTTAAC AGCAGTACTT ACTGAGGTTT AAGGCTGGCA GCCAGTGTCC 101340  
TTGCAGTAAA ATTATTTGCT AGGGACTCAG TACTTCATAA TCTATTTGTC AGATTACTC 101400  
CTAAGCTTCT GTGTTGTTTT ATTTTTTTTG TGACAAAAGT AGTGCATATT GTCAAGGAAA 101460  
AACTAGGAAA ATACCAAAAA AAAAGATTTT TGACCATGCA TTTTAATACT TAGTGACTAC 101520  
AAACATTTTC CTATTTTATG CATATAGATT TTAATAAAC GTGAGATCCT ATTGTATCTG 101580  
TTTTAATGGA TAAACATTGT TCACTGTTT TAAGATTCTG AGGTGATTTA TACTGTCTTG 101640  
CCATTGTAA TTGCAGCAGT TAGCCTTGT GATAAATTTT TGCATGGATC CAAGTTTTGT 101700  
TTTCAGGAG TGGAGTTGCT TGGTCAAAGG AAATGCACAT TTAAGGTTTT TTGGTGATTG 101760  
CATGACTGAC TTCCCTGGGC CCTCGCCAAC ACTAGGTAGT AGTATTGGGA GGAAGGGGGG 101820  
AACCAATCCT GGGTGCTCCA AGATTACTAG TGAGCCTGAA CATTTTCTAT AACTATTGTC 101880  
CACTTGAGTT GTTGTGTTTGT TTTTTTTTG GTGGAGGCGG GGGTGGGTTT AAGAATTGCT 101940  
TATCCTTTGC TTGTACTAAT TATCTTTTCA ACAAATATTT CTAGATTACT GCTAAGGACC 102000  
AAGCACTGTT ATCAGCCTGA GATAAGGCAG CACACTAGAA GGAAATCCTT GCTCCTTTTG 102060  
AGTTTGCCCT CCAAACATGG AGATCAATAT ATAATGTTAG GTAGTAATAG GAGATACATG 102120  
CAGTTGATTC ATGTCATTTG TAGTAGTTAT GGTCAATAAA GTTGCCCTGA AACTGAATT 102180  
AGTATAAACT GAAATACTGT TCCTAGGGGA AATAGGTTCC TGCTAGCCTG TGGTCATGAG 102240  
ATTTTTGTCA AACAATCACT ATATAACCTT TTCTGTTTCT GTTTAAAGAC ATGTTATTTG 102300  
ATCTATATGG TTGATTCTTT ACATTAACAT GGCCAACAGC ACTGTAAGTC AGCCTGAACG 102360  
AAGCTTATCT GACACATGGT GTTCTCCATA AGGCACATCA TAGCTTTCTG TGCTTAGGAA 102420  
CACTAGACGG CACTTCAGCA CTGCACTTGA GGACGTTTTA AACAGTGAAA TCAACAAAAA 102480  
GCACAAAAAA ATGCAACAAT AGGCTGGGCA AGGTGGCTCA CGCCTGTAAT CCCATCACTT 102540  
AGGGAGGCCG AGGCGGGCGG ATCACGAGGT CAGGAGATCA AGACCATCCT GGCTAACACG 102600  
GTGAAACCCC GTCTCTACTA AAAATACAAA GAATTAGCCG GGCGAGGTGG CAGGCGCCTG 102660  
TAGTCCAGC TACTCGGGAG GCTGAGGCAA GAGAATGGTG TGAACCTGGG AGGCGGAGCT 102720  
TGAAGTGAGC CGAGATTGCG CCACTGCACT CCAGCCTGGG CGACAGAGCG AGACTGCGTC 102780

FIG. 6.39

TCAAAAAAAAA AAAAAAAGGA ACAATAACAA AGACACTAGT CCCCCAAAAA TACACTTGTT 102840  
TACAGTGTGA ACTGAAAGAG GAAGGTGGAG TATTGACTTG TTTGACCTCA GCTGGAAATG 102900  
TGCACGTCCT GTGACTCAA TTTTCTCTG TTCTGTGCAT GCATGTCCAC GAATAACCAC 102960  
AAGAAGCACT GAAAGCATTG ATTTTATAGG TTACAAATTA ATTTTAGCAA GTAAATGAAT 103020  
TCACAAATAC GGAATCTGTG AGTAATGAGG ACTGATTCTT TTTTTTTTG GAGATGGAGT 103080  
TTCACTCTTG TAGCCTAGGC TGGAGTGCAA TGGCATGATC TCGGCTCACT GCAACCTCCG 103140  
CCTCCCGGGT TCAGCCTCCA CCTCCCGGGT TCAAGCGATT CTCCTGCCTC AGCCTCCCGA 103200  
ATAGCTGGGA TTACAGGCTT GCACCACCAT GCCCGGCTAA TTTTGTATT TTTAGTACAG 103260  
ACGGGGTTTC ACCATGTTGG CCAGGCTAGC CTCGAACTCC TGACCTCAGG CAATCCACCC 103320  
ACCTCAGCCT CTCAAAGTGC TGGGATTACA GGCCTGAGCC ACCGCGCCCG GCCGAGGACT 103380  
GATTCTTATG TCAGATGGCA CTAAATGCTA TGGAGAAGAG GAGTGGATGA GAGGGAGAAG 103440  
TATTTTAGAC CAGGTAGACT TGGAAGGTTT CTTGGAGGTG GGTGATGTT GAGAAGAGGC 103500  
TTCAATAAAG TTAGGGAGCT CGCCATGTGA TTGCAGGAAG AGCGTTCCAG GAGAACAAAA 103560  
GTCATGAAGA GTGAGTGCTA GGCATGTGTC TGGTCTGTTT GGGCTGCTAT AACAAAATAC 103620  
CTTAGACTGG GTAAATGTA TAAATAATAG AAGTGTATTG CTTATAGTTC TAGAAGCTGG 103680  
GAAGTCCAAG ATCAAGGTAT CAGCACATTC TGGTAAAAGC TGCTCTGCTT CATGGCTGGT 103740  
TCTCTCACTG TCCTCACATG GCATAAGAGG GGCACAGAGC CCTCAACCGT CTCTCCAGTG 103800  
GCCCCATCTC TTAGTACTGT TGGATTGGGG ATTTAGACTT CACTAATTTT GGGGGGACAC 103860  
AAACATTGAG ACCACAGCAG CATGACTGAG GATAAGCAAG AGGCCAGTGT GGTGAGCAG 103920  
AGTGATCAGT GAAGGAGAGT TAGGACATGA GTAAAGAGGC TAGCAGACAC CAGATCTCAT 103980  
ATGGCTTTGT AGGCCATAGT GAGGACTTTG TTTAAGCTGA GAATAATAGA TAACCTCAGG 104040  
AAAGTTTCAG GCAAGAGGGT AACATGATCT GATCTGGGTT TTTAAAGGAT CACTGAAGTG 104100  
GGGAGACTGT CTACAGATGG TCTGAATAGG AGTCCTAGTC TATTACAATC TCCTGGAGT 104160  
TTAGGGTGGT AACTGGAGGT GTTCAAGAGT AGTTGGATTA CTGTTGGATT TCAAAGTAG 104220  
AGCCAACACG ATATGTGCAT TGGCTGTGAG GTAGAAGAGG AGTCAAAATG AACTCCAGGT 104280  
TTTATTGACT GAGCAATTGT GCCATTTCTT GAGATGGGTC AGATTTGGGA AGGAAAGAAT 104340  
TTAAAGGGGA TAAGATAATC CCATTAGGAG TGTGTTAAGT GTGAGATTCC TATTAGACTT 104400  
TCGAGTGGAG ATGATTAAAT AGGAAGATAG ATCTGCAACA CTGGAGCTCA GCGGAGAGGG 104460  
ACACCCTGGA GATAGCCGT TGGGAATTAG GAATGTGTGG ATCATGTTAT AGGATGGGGT 104520  
CATTTAGGGA CTTAAACAG CTCTGAAGAA CAAAATGGT GCCTTGATCT TGGACTTCCT 104580  
GGTTTATAGA ACTGTGAGCA ATATATATAT ATTTTTCAT AGACAGAGTC TTGCTCCGTC 104640  
ATCCAGGCTG GAGTGCAGTC GCACCATCTC GGCTCACTGC AACCTCCACT TCCTGGTTCA 104700  
AGCAATTCTG GTGCCTAAGC CTCCAAGTG GTTGGGACTA TAGGTGTATG ACACCATGCC 104760  
CGACTAATTT TTGATTTTTT TTGTAGAGAC AGGGTTTTGC CATGTTGGCC AGGCTGGTCT 104820  
CAAACCTCTG ACCTCAAGTG ATCTGCCTGC CTTGGCCTCC CAAAGTGCTT GGATTATAGG 104880  
CGTGAGCCAC CATGCCCAGA CTAATTTCT AACATTTATA AATTATCCAG TCTAAGATAT 104940  
TTTGTGATAG CAGCCCAAGC AGACCAAGGC AAAGGCCAAG CACACTTGCT CCTCCTGACT 105000  
TTTGCTCTTC CTGGAATGTT CTTCTTTAG TCACATGGTT GCCTGCCTAG CTTCAATCAA 105060  
TAGGAGTGTG GTGCCCTGAA AATACAAGGA AGAATGCTTT TCTTTTTTT AAAAGGAAGG 105120  
GATGATTATC TGTCAATGTC TGCTGAAAAA GAGTAATAGA GTAATTGGCC ACTGGCTCTG 105180  
GCAATAGGGA AGTTAGCTCT GCTAACTCCA CATGAACAGT TTCACATGAA CAAGTGTGAG 105240  
TGGGCTCAAG AGAAGGGATG GTGAGAAAGT GGAGCTATGG ACTCACTCTT GAAACATTTT 105300  
CTGGTGCTC GTAGGGCAAT GTGAGGTCAA GGTTTTGT ACTGTTCTGA AGATGGGAGA 105360  
GGCTGACACA TGGATGTTGT AGGTGAGAGA AGGGGCGCTT GCGGGGGCAA ACTTCTCCAG 105420

FIG. 6.40

GGATGGGATT CCAGTGTCTA AGAGGAGGCG GTGTGACCCT AAGAGCTAGA AAAATTATTT 105480  
TATTAATAGG AAAGACAAAG TACTTAGGCT CAGATGCTAA GAGATTTGCT GATAAAAGAA 105540  
TGAGAACGGT CTCTTCTGAT TATTTTCTTG GGGAAATAAA TAGATCATCA GCTGAGGGTG 105600  
TGAGGGGAGA AGGAGTTGAA CATGGAGGAA GACAGGTGTG AAATATTGGT CTCAGAATGG 105660  
AGAGCGAATT GAATAGGGAC ATGCAGTGGG CTGCTAAGC TGTGCGGAGA GCCCGTGGA 105720  
AGTTTATGGT CATCAATTTA ATGGCGACCA GCCAAGATGG TGGTTTATTT TTCTCCAGTT 105780  
GTATTTAACT GCTCAGGTGC AGGACAGAGA GACTAAGTGT GAAGTTAATT TCAGCCAACG 105840  
TAGAGGAATT GTCAGGCAGA TGGGACAAGG AGATAGAGGA GAAAAGGAAT AAGGCTTCCT 105900  
GCAAGGGTAA TGATTGTAGG GATGGATAAG TAAGGAACAC AGGAAGTGGC TGTCTGCTGA 105960  
GTGGTGGCAG AGCTCAGTGG GTCAGAGCAA GGTTCAAAGA ATGGCAGAGA GGCACCTGTG 106020  
GAGGAAGTAA GCTGGCTAGA AAGTAGTGTG CTTGAAATTA AGCTTCTGGA GATAGCAAGG 106080  
TTACAGGTGA TGACAAAGTC TGAGTATGAC AAGGAACTG CAGGGCCAGA GTTGGAAGA 106140  
ATTCATGAAA AATGAGGAGA AAGAGGCACC AAGAGGCTGG GATAGCACAT GGATTGTCTC 106200  
TGTGTGAGGC AAAGTCATCT AAATGGCAGC AGTGGCCCTA GCAGAAAGAA ATATACAGTG 106260  
AGCCGGAGCA AAAATCCTCA AGGACAGGCA GAACGCCATG AAAACGGCAG ATGACAGCCA 106320  
AAGGAGCAGG GGCAGGGGCT CAGTCCAAAG TGTTCAGAG TCACTGGAGG GTTGAGTGGG 106380  
AAGGGGAGGG AGTGGCTGAA ATGGCAACAA GGAAGAACCT CTCTCATCTC CAGGCCCAAA 106440  
AGTATGTGGA ATGCGGGAGA TAAGACAGCC ACCACTGGCC AGGGCTGTAA AGGGACATTC 106500  
AGCGAATATT CAGGTTCCAT TTAGCACGAC AGCAGGGAAG GGAAGTTGG CAGAAAAAAA 106560  
CTGGGGCAGT GGGATTAAAG ACAGACCACA CATTCCAAAA GGCACCGTGG GAGGGTCAGG 106620  
GGGCGAGGTT AGGTCTAGGC TTCAGTGTCC TGGGAGACTC AGTCTTCACA GGGTGACAGC 106680  
GATCAAGAGT GCAGCTTAGG CTGGGTGCAG TGGCTCATGC CTGTAGTCCC AGCACTTTGG 106740  
GAGGCCGAGA CGGGAGGATT GCTTGAAGCC AGGAGTTTGA GACCAGTCTG ACCAACATGG 106800  
CAAAACCCCA TCTCTACTAA AAATACAAAA ATCAACTGGG CATGGTGGCG TGTGCCTGTA 106860  
GTCCCAGCTA CTTGAGAGGC TGAGGCAAGA GAATCACTTG AACCTGGGAA GCAGAGGTTG 106920  
CAGTGAGCTG AGATCGTGCC ACTGCACTCC AACCTGGGCA ACAGAGTGAG ACCCTGTCTC 106980  
AAAAACAACA ACAACAAAAA AGAAAAGAGT ACAACTTATG AAGGGGTCTC CTGGGGAGAG 107040  
GGTTTTTGGG ATTCTCCTGC CTCTCAAAGT GCTGGGATTA TGGGCGTGAG CCACCACACC 107100  
CAGCCGAGGG AGGCTGAGTT CTAATTGTTG TATCTCTCTT GGGATTGGCC TCCTGGGCAG 107160  
TTTAAAAGAC AAGGCAAGGA ATCTTTTGA GAAAGAGACT GGGGGCAAGG TGTGTCTGAA 107220  
CAAGAAGTGT GAGAAGCTCT GTGGGCTCCC TTCAGACTTC CAGTCGTTGA ATTGGGATCT 107280  
CATTTATATC AGCTCTAGGT GTAACGATAT TAAATCTTCT CTGTCATTTG GCAATTTTGG 107340  
TTTATGCTTG ATCATCATTT TTAATGTTTC GACATGTAGA AGTTTAACAT TATTTTACAT 107400  
TCTTTTCTT CTGGCATCAT GTTTTAGCAA GATTGTTTCC ACCAAAAGAA TATATATATC 107460  
TTCTAATGAA ACTACGTTTC TTTTTTTTTT TTCCTTTGCT TTCTCTTTTG GTATATGAAT 107520  
CTTTGATTAT TTGTAATGTA TTTTGATGTG TAACACTGAA GTTTCTATTT TGTACTATTT 107580  
TTTTCCCAA ACAGTAAACT TATTGTTCAA ATACTTATTG AACAACCTTC ACTATTCTTT 107640  
AACCATTTAG AATACGCCAT TCACATATCT TTCATACTAC ATTTAATAAC ATTTTTTAAT 107700  
TAAAAAATAT TCTACTGATT TGTTTATTTT GAGACCAGGT TATGAACTG GCTAATTTTT 107760  
GTATTTTGT TAAATACCGA AATCACTGT GTTGCCAAGG CTGGTCTCGA ACTCCTGGGC 107820  
TCAAGCAATC TGCCACCTT GCGCTCTCAA AGTGTGGGA TTACAGGTGT GAGCCGCTAC 107880  
ACCCGGCCAC ACCCGGCCAA CACATATTAT TTGTTATTAC ATTTAATTCC CACAGTACAT 107940  
TGAAATTATC AGGGAAAAGT TTTCACTGAA ACATTATTGA ACGCCACATT AAAAGTGTA 108000  
ATTACAAAGA TTTAATGCCA ATTTTTCAGA AGAAAAAGA CCAGGAGGAA GGTCTATGAA 108060

FIG. 6.41

GTTTTAGCCA GTCTCTCATC CACCTACCAT TTCACGATCA TGCACTGTGT AAGTCAGGAA 108120  
AAGAGTAAGA AAAGTGAAAG ATACAATTGA TTAGAGAGTT TTGCTGGATA CTATAGATGA 108180  
AAAGAACACA AAATGGAACA GCCTCTTCAA GCTTAGAGTC AACGGCTGTA GTCCCAAAGA 108240  
CTGTAGTCAG AGGCGGTAGG GCCAAAAGAC ATGACTTATG GCATTGGAGG AAGAGGATGC 108300  
TTTGGGAGTT CATGGTAGAA GAGGCGGAAA AAATCTGGTG GATTAAAGAA AGCATCCCAA 108360  
AGTGACATTA AACTAATGAC TAAATTCTGA GCTGTTTTCA GGGGCAAAGC CTGTTTGGGC 108420  
ACCCCTGCCA CACTTAAAGA GTCACCTAGG TATGGTTCGT GGGCTCTGAA CAGGCCTGCT 108480  
CAGTGAACAT ATTTGTGACT GTTCTCCGG CCCTTTTAGC TGTATTGAGT AAAATTTAAA 108540  
GAGACCATTG TTTTGGCCTA AGCTCCTGCC CTAGGCCCAA AGAACAGACC AAACCTGAAT 108600  
GGCTTCACTT GTCCTAGGTG CTGTGTAATC AAACGAACT TTGAAACAGG TCGGTTTTTC 108660  
AAAAAAGCA AAAGATTAC AGCAACCAAT TAGAAGAGGC CCGGTCAACC TGAGCCAGCA 108720  
TGATGAGGCT CTTCTGCTT AATCCTACAA GAAAGAAAC TTTGAAATGA CCAATCTGCT 108780  
TTCATTCTTG GTTCTGCTT TCTTTGGTCT ATTTCTGCCT GTAAACCTA TCTCCTCTGC 108840  
TCAGCTCATT GAAGTACCCT TCTATTTATA GATGGGATGC TGCCCGACTC ATGTATCGCT 108900  
AGTAAAAGCC AATTAAATTA TTACACTCGA TTTGTTGGAA TTTTGCTATT TTGACAGCTT 108960  
TTCAAAAACA CCAGTAGGTT CACATCCCTA ATTCCCCAGC CAGTGTTCCTC TCAAGGAACC 109020  
ATGGAAGAAG CAAAGGTGGC TGAAAGGCGC CTCAGGATGC TTCTAAGCAC GGCACATCCA 109080  
TGAAAAGGCA CTTACTAATA TTTGCAGGAT AGCAAAGCAC TGCAGTGACG ATAAATCTAG 109140  
TATTGGAGAA GTTCAAAATA ATCAGTAGAT TAACACAGAA GCCAGAGCTT ATAGGGAGAA 109200  
AAGGAACCCT ATGAAATACT TCAAATCCGA AAACGAACAT GCATTTCTCTG TTTAGTTAGT 109260  
GCAGGTACGT AAAAGCTTGG TAAAGTACCC TTCTTGCCAG CTTTCTCTT CTTACAAGCC 109320  
TTTTCACTGG GCTGGGAGGC TGATATTATC TAAATATGCT GAGGAGGTTT AAGTATCTCC 109380  
ACAACCTACC TCAGAGTGAA TGCTCCCCCTC GGCCTTAAGG CAATATAAAC CAGCCCTGTT 109440  
TAGCAGGATA GCAAAATGTT TGCGGTTGTA AACTGGTGTG CCATTGGCTG TGGCGCTTGT 109500  
GGTGTAAGA ATCCCTGTGC TTGGTAATTA ATAGAGAAAT TCTATATTTT AAACCTCAGT 109560  
TGTATATTGG CTCTTATCCA TGGCAGATTT TCACGTATGT GTTATTTTTT TATTATTCA 109620  
GAGCCGGAGT CTCGCTTTGT CGCCCAGGCT GGAGTGCACT GGCAGGATCT TGGCTCATTG 109680  
CAGCCTCTGC CTCTGGGCT CAAGCAATTC TTCTGCCTCA GCCTCCCTAG TAGCTGGGAC 109740  
TACAGGTGCA TGCCACCACG CCCGGCTAAT TTTTGTATT TTAGTAGAGA TGGGGTTTCA 109800  
CCGTGTTGCT CAGGCTGGTC TTGAATTTCT GAGCTCAGGC AATCCGCCCC CCTCGGCCTC 109860  
CCAAAGTGCT GGGATTATAG GTGTGAGCCA TCATGCTCGG CCCTATGTGA TATTATTAC 109920  
AATGAATTCC AATGATCAGA CCTATACTCA AGTATAAGTG AATATATCAT TCAATGAAGT 109980  
ATAAATGATC ATTATGTTCA TATTCACACA TACAATAATG TACTCAAGTT TATTGCTAAG 110040  
GTAATTCAGA ATCTCCTTAT TTTGAAGTGT GCATTTGATA TACCTGTTTG GGAATAACTA 110100  
GTTTCTTATC TTTGACAGAA AATAATTTTG TTGTTTTGTT TTTACTAAAA AAGCATGGTG 110160  
AAAAATGGCT CCATTTCTAA GAGAGGTAAC TAAAATATCG CAATTTGCTG GGTGTCATTA 110220  
AAGTAACTCA CAAGGGAAAA AATGCAAATT GGTATCTGCT GATGGAGTAA ATCTCCGCAG 110280  
AAGTGATGAC CCTGAAAGGA TCAATATATT AAAGCCCTC CCAGCTGGTC ATTCCAGATT 110340  
GCAACAATAA AGCATTAACT GTTAAACCT CAAGGCAGCT TTTTTTTTTT TTTTTGTCT 110400  
CAAGTCCTTT ATTATTAATT TTATAGACCT ACTTAATTAC TAAGCCAAAA AAAATCAAAC 110460  
TTGTTTCTCT TTGTGACTTG TCAATAGTAT TAAACTATTC TGGTTTTTTA TTTTGTGTT 110520  
ACCTTAAAGT CTCCAGTTTA GTAATTTTTT TGTACCTAAA CACTTCGGAT TTGACATGCT 110580  
TTGTGGCCTT TATCAGTAGT TAGAATGTAA ATCCAATAA TAAAGTAAAA GCCAGGTCTT 110640  
CAAAACCTGG GGGCCAAGAA CTCTGTTTTA GAGGGCCTGT GACTCTCTTG GACACTGGAC 110700

FIG. 6.42

AAAATCTCAT CTCTAAATAT GGATATTTTA GGGAGAGGGT CTTTAGGCTG TCATTTGGAT 110760  
TTTCACAGGG CTCCATGTAT CCATAAGGTA GTCTCTTGGG AAGTTTGACT TCAATAAATG 110820  
AAGTTTAACT TAAACCTAAA ATGAAATTTA ACTGAAAAAC AAAATCCAAT GAAAGATGCT 110880  
TTCTTATGCA AAAACAAACA AACAAAAAAA AAACAAAAAA ACCCCAAAAA ACCCAAAGCC 110940  
AAAGATTGTT TCTGAAATTA GGTCTAGGT TCCAGAGCAA CTCCATGGTG GGAATCAGC 111000  
CACATGTAAG GTAAGCTAAG AGTTTGGACA ATTTGTAATA TTTATTCCTA GGTTCCTTTA 111060  
AGACCCCTTC AGATTTTGAA TTCCTATTAG TAGCATCAGC CAGGTTCTAA ATGTAGGCAT 111120  
CACCATAGAC ACTTCCCCAC TGCTGCAGTC CCCAACACTT GCCCAATTTT CCCTTGAATT 111180  
GCACCCATGC TGCCTTCTCC AGGCCTATTT GAACCCAGAA CCTCGTTGTG CCTCGTTTGA 111240  
AATATAATTT CCTCCTAACT AGTCTCTGAT CTAATTTTC CCCTACATTG CTGCCACACT 111300  
AATCACCTAA AATAGATTTC ATTCTACCTT GAAACAGAAA TCTCTAATAA GTTACTCCCT 111360  
TCCCTTACGG GGTAAGTTA GCCACATCCT AGGTATTCAA GGACCTTCCA GGAGCTAAGA 111420  
ACATTTCCCC TGCACCTTCT TGAAGTACAC TTGTCTATG TACTGGTTAT GTTCATTCT 111480  
TACCCTCGCT CTCGTTTTGT CTGGAATTTT CCTTGGCCTT AAATGCCTCT CACCTGCCTG 111540  
CCCACATCTC TCAGGGTTGT TTCAAATCCT CAATGAAGGC TCACAGCCCC AGTCTATGTT 111600  
GGCCACTTAC TTCGTGGCCT GGGAACATTT TTCTTTGGCT GACTTGCTGA CACTCCATCA 111660  
GATGCATTTT TATCTGGTTG TCCATCTGTG AACCATACCC TGAGAAGGCA GAGAGTGCCT 111720  
CTGCACTGAA CATGTGCTAG GGGACAGGTC TGTGCTAGAG GGGCAAGCAC TGGGAATGAA 111780  
GAACTGGTCC CTAATCCCAA GGAGTTCATA TCTCAGTGGA GGTGACAAGC AACTCACTGT 111840  
TTCCGGGGGT TGTGGTGACT GCTGGGAGAA GGGGTGTCTA TATTAGATCG AAGCAGCATC 111900  
AGGGGAGGTT CCCTGAGAAG GTGATGCCTC AGCGGATGTC TCCCAGCTAA GTGGGGTGGA 111960  
GGTGGAGAAG GGCAGAGCAG GGAGAGGATC TAGGTGGGGC GTGTAAGTCT GCATGGGTAA 112020  
CTCAGGGAAC CCTTGGTAAC TGCATGTAAC TGTGTGAAGC TTTCATGAAG GAACATGGTA 112080  
GGAGACTAGG GTATGGACTA TAGAAGCCCT TTTGCTAAGC TCAAGAATTT GAGGCCGGGA 112140  
GCGGTGGCTC ACGCCTGAAA TCCCAGCACT TTGGGAGGCC AAGGCGGGCG GATCAGAGG 112200  
TCAGGAGATC GAGACCATCC TGGCTAACAT GGTGAAACCC CGTCTCTACT AAAAAAAG 112260  
TACAAAAAAT TAGCGGGGCG TGGTGGCGGG CGCCCGTAGT CCCAGCTACT CAGGGAGCTG 112320  
AGGCAGGAGA ATGGCATGAA CCCGGGAGGC GGAGCTTGCA GTGGGCGGAG ACTGTGCCAC 112380  
TGCACTCCAG CCTGGGCAAC AGTGCAAGAC TCCATCTGAA AACAACAACA ACAACAAAAA 112440  
ATTTGAAGTG TATCTGAAG GAAATCCCTT GGAGCCTAAA AATGATCATT GATAACAGAA 112500  
AATGATCTCT GCTCTGCCT AGGGTAATAT ATTCAGCTTC AAAGTGAAG GGCATGTTTT 112560  
CCAAGGGCAT GTTTTCTAAG TCCCTGTAAT TGTAGTGATA GCAAATATAT GCCCTGCATC 112620  
TTGAAATGTA AGACTAGGTT TGAACAGTAT ATAAATTATC TTATGATCTA ATTTCCCTC 112680  
ATTTTGTGGT TTCTACTATA AGCTACCCAG AAGTGATAGC AGGACGTTTG GAATTTGATG 112740  
GGCATCGGAA AGATTCTAC CTAAGAACAT TTTTTTTTTT TTTTTTTTTT CTGAGAAGGA 112800  
GCCTTGCTCT GTCACCCAGG CTGGAGTGCA GTGGCACGAT CTCAGCTTAC TGCAACCTCC 112860  
ACCTCTCAGG TTCAAGTGAT TCTCCTGCCT CAGCCTCCTG AGTAGCTGGG ACTACAGGTG 112920  
TGCACCATCA TGCCTAGTTA ATTTTATAT TTTTAATAAA GGCAGGATTT CACTATGTTA 112980  
GCCAGGCTGG TCTTGAATC CTGACCCCAT GATCTGCCCA CCTTGGCCTC CCAAAGTGCT 113040  
GGGATTACAG GTGTGAGCCA CTGCGCCCGG CCTCTAAGAA AATTTTGTAG AGCTACTTGT 113100  
TCTGTTGCCT GGAATTCCAC CGTAAGTACG ACGTTGTGTC TCCTTCTCCA GGGCTACTAA 113160  
CTAAACAACA GAGGGTATTG TGTTATCGAC AATTATTTGA TTGATAACTA TCAGCAAACA 113220  
TTTGCCAAGG CATTCCTTTA AAGATAGCCT AGTGACTCTA TTAATACTC CTTCTCCAG 113280  
GCTTCTAAGT TCTGTTGGAG GTAAGTAGAT CCCAGAGATA AAGCACCTAC CATAGGACCT 113340

FIG. 6.43

GAATCTTGGT AGAAATAAAT TATATCATCA TGTTATCATA TTATCATGTG TTTTCTATC 113400  
TTTAAAGTCT TATGTGAATA TTCTGCTTGA AAAATATGTG TCCTCTGTGA GACCAGAGTT 113460  
GAAAATATGT TATTCAAGAA CTTGTAACAG GAACCCGCAC AATTTCTGCT GGAGTTTAAAT 113520  
TTCAGGGTTA ATTCTGTCAG CAATCTAAGG TAAACATTAA CATTTTCCC TAGATTCAAG 113580  
TCCGTTGTCC AAAAGCTGTA ACAGAACTTA ACTGAATAAA TAGTTTCTTA AGATGGTAAG 113640  
CTTCCATATG CTTATAATGA CTCCTCTACA CGTTTTCATC TGAAGGCTG CTCATGCTTT 113700  
TGGAAGCAAA GAAGACAATC TTAATAACT ACATTGCTT TTTGGTGGTG CCAGATT.TTT 113760  
CTGAGAAACA CCAATGGAAT TTATAAATC ACCAGTCAAT GGGCAATTGA GTTGCTGTTT 113820  
TGCTATTACC ACTGCCGTTT GTGAGCATTG TTGGGAAGGT GTCTTGAAGC ACACGTGCAA 113880  
GTTTCCCTTG GATAAGTAGT AGGAATAGAA TTGCCAAACC ATGGCTTCCA GTGCAGACAC 113940  
AGTCTCTCCC TTGGGCCAG CCACTAGGCA CCACACATTA AGAGGATATT GTCTGTCCAT 114000  
GTCCTAGAAA CGTTGTAGCA TCATGCTCCT ATTCGATTAA AAATCTCATT ATTAATAATGA 114060  
ACCATCGGGT AAATGTTGTC TCGGGAAGG AAGCACTGAC CGTCCCTGGG TGGGCTCGAA 114120  
CCACCAACCT TTCGGTTAAC AGCCGAACGC GCTAACCGAT TCGCCACAG AGACCCAGTT 114180  
ACTCAGGCCG CGCTGCGGTG TGTACAGATT TCCGCGCGCG CGGCAGCCGC TCTAGCCACC 114240  
CTGGGCGTCG CCACCCAGG CGTTGCCACC CCAGGCACGG GCTGAGAAGT CGCGGGGCGC 114300  
GCCGAGGAGG CAGCGGAAGC GGCCGAGGTG CCCAGCGGCC GCCGCGGGGG GAGAGGCTGT 114360  
GCCCCGGCGC GCGGGAGGGG GCGGGCGAGG CCGCGTGAAT CCGGGCTTCT CTGGGGACGA 114420  
AGCGCGCCCC TCGTGGCGGC AGCGGCCAGT GGTCCGCACT CGGCCCGGAC TCGGGGTAGG 114480  
AAAGATCCTC TCAGCAATGG CTGCGCGCCA TCGTGCTCT GCGGCGGGGA CCGTGCCGGC 114540  
CGGGCGCGCC ACCAGTAACC AGGGACCCAG GGGAGAACCT GCCAAGGGGA ATAGGTGCGA 114600  
CGGAGAGAAT ACGACACGCT TGGAGGGAAG AACCACTGTC TGTACAGGT TAAAGGATGG 114660  
AGAGTCACGT GCGCTTAGGT CCCAACTTA AGGGACCTAA CCCTTTTTCT GGGTTGCCGC 114720  
TATTGCCCT TCTCCTTAGA CAGTTTTCA TCTATCACC TCTACCCCCG TAAATGCAA 114780  
CGAACATAGA TAGGCTGTGT ATCAATGTAG ACTGTATGTA TATCTGTGCT TCGTACATAA 114840  
AAAGAATATG ATTTTGGCA CCTTCTAAGA ACCAATTGTC ACCCCATTTT GAGGCATATG 114900  
GCCTCTGTTG AGATTGCATA GTTTAGGGGA CATCAAAAA GCCTTATAGA GGGACTGGCA 114960  
ATTAAGATAG CCTTTCAGT TGAATGGCC ATTGAAGGCT TCTCCCTTC CCTGACTTCT 115020  
GAATTTTTT TTTTTTTTT TTTTTTTTT TTTGAGATGG AGTCTTGCCC TGTGCTGGA 115080  
GTGCAATGGC GCGATCTCGG CTCAGTCAA CCTCCGCTC CCGGGTTCAA GCGATTCTG 115140  
CCTCAGCCTC CCGAGTAGCT GGAATACAG GCGCCTGCCA CCACGCCAG CTAACCTTTG 115200  
TATTTTAGT AGAGGCGGGG TTTGCCATG CTGGCCAGGC TGGTCTGGTA CTCCTGACCT 115260  
CGTGATCCGC CCGCCTCCGC CTCCAAAGT GCTGGGATGA CATTACAGGC GTGAGCCACC 115320  
GTGCCCCGCC AATTTTTTA GGCGCACTGT TCAGTGGCAC TAAGTACATT CACATTGTTA 115380  
TGCAACTATC ACCGCCATCC ATTTCCAGAA CCTTTTCATC TTCCGAAACA GAAGCTCCCT 115440  
ACCCATTACA CGGTAATCA CGATTCCCT CCTCTAGTCG GAACAATCAC CATTCTACTT 115500  
TCTGTCCCTT TGAATTTGAC TACTCTTAGA GACCTCATGT AAATGGAGTC ATACGGTGTT 115560  
TGCCTGTGGC TGGCTTATT CACTTACCAT ATGTCTTCAA GGTCCATCCA CGTTGTAGCC 115620  
TGTGTCAGGA TTTCTTCTT GGATAAGGCT GAATAAGCTG CACTGTATGC AGGTATCGCA 115680  
TTTTGCTTTT CCATTCTCT CTCCGTGAAC ATTAGGGTTG CTTCCACCTG CAGCTATGAA 115740  
CATGGGTCTA CAAATAACTG ATTCCTGCT TTCAATTCTT TTGGGAATAT ACCCAGAGAT 115800  
GGAGTAGCTG GATCACATGG TTTGCTATTG GCTGTACCAT TTTACATTG CACCAACAGT 115860  
GTACAAGAGT CCCTATTTCT CCTCATCTAT TTTTTTTTA AATAATGGGC ATCCTAATGG 115920  
GTATGAAGTA TCATCTCATT GTGGTTTTGC TCTGCATTC TCTAACGATT AGTGGTGTG 115980

FIG. 6.44

GGCATCTTTT CCAGACACCA CCAATCTGAA TTCTATGGCC CTTCGTTTAC TCACTTCCTC 116040  
CCAGCAAGAG CCATTTCTGC TTCAGCAAGG AGGAAGCTGC GACTGATAGA GGGAAAGGGC 116100  
CCAGGGGGCT TGCAGAGTGG GGCCTGTGCC ATGCAAGGAG AGGAGAAGAA GGTGGATCTT 116160  
TGAGTAGGAC TATCTGGAGA TCCTGCTTTC ACAAGTCTCT TGCTTGTGTG CTGGGCAGCT 116220  
TTTGAGCTA GTTATCTTTA TTTAGCCCT TGAGGGATAT TTAGGCATGT GGTGCTTGTG 116280  
AGCAGCCAAT CCATGAAGAA GGAAGTGTG GTCTCCACCT TGGAAATATT GGAAGAGATA 116340  
ATGCCGTCCA AATTGCAGTT TTAGAAGTTA ACTTAAATTT ATGCTATTTT AATGGAATTT 116400  
TGGGTGCATT TCCATTTTCT TCTTAAGAAT TGCTGGAATT TCTTAAGTGT TTAGGTGATG 116460  
ATCTCTTTT GTGATTCCTT TTTTAAAAA CAACAACAAA ATCTTTCAA TACATAAGAA 116520  
ATAGGCCGGG CACGGTGGCG TAATCCCACC ACTTTGGGAG GCCGAGGAGG GCGGATCATG 116580  
AGGTCAGGAG ATCAAGACCA TCCCGGCTAA CACGGTGAAA CCCCCTCTCT ACTAAAAAT 116640  
ACAAAAAAT AGCCGGGCGT GGTGGCGGGC GCCTGTAGTC CCAGCTACTC GGGAGGCTGA 116700  
GGCAGGAGAA TGGCATGAAC CCGGAGGCG AAGCTTGACG TGAGCCTAGA TCGCACCCT 116760  
GTACTTTAGC CTGGGCGATG GAGCAAGACT GTCTCAAAA AAAAAAAG AAAAAAAG 116820  
AAAGAAATAG ACCTTTATTT TTCTGTAAT CCACAAAAT TCTATTTTGA TTCCCTATTA 116880  
TTTTGCTATT GTCAACACAG TCTCAGTCAA TTCAAGATCC TGTGTGTGCC TTTCCCTGGA 116940  
GTCATTTCCA AGTGCTAAGG CTTTGGTCCA TGAGTCGCAT GTGCACACTC ATGGCTGTAG 117000  
AGGGAGTTTT GCTCCCGGTG AAGGTCTTGG TGGCTCTTCT ATACCTTGAT TGAGGGAAAG 117060  
GAATCTTATG TGAAGTTAGC TTTGTTGTAT CAGATATTCC ATAAAGCCAT TTCTGGGACA 117120  
GTCCCTCTG TTTATCGGAC CACAAGCTT TCTGTCTCA TCAAGCCCAC CTTTATACTT 117180  
CATTTCTCCA GACTTCATGT CCAGACTGTG GGATGAACAA GTGGTTATAA GGTTTTAGAG 117240  
GCTCCTGTAG GACTAGATGG AAGGCAAAAA AAGGAAATAA CCTTTAAGCA TGCTCTCGAT 117300  
TCCTTAAATC CCATCTGAAA GTCTTAAGGA TGTCTTCTCA GTCATACTTA TTTGACAATA 117360  
TTACCTAATT TTCTCCATTA GCCCAAGCTC AGGGGTCTTT CTTCTTCCAT ATTCACATGG 117420  
GTGCAATGGT TTTCTGAAAG GAAAACAGCA TTAGTAGGGC AGTAACATTT AATTAATCAC 117480  
AGGTACTTAT CAACTACAA AACAGGCATT CCAGGAACTG GGTGTTTCTG TTTGTAAAAT 117540  
TACACTCTCG TGTACATGCT CCCACTAAAA TGTAAGTTCG CTGAGGATGG AGGTTTTGGT 117600  
CTCTTTGCTC TGTGCTGTAA CCCCAACACT GCAGCAGGGC CTGGCACATA GCAGGCATGC 117660  
AGGGACTATG CACTGAATCA ATGAGGAAAT GAAAACCAGG ACCATGAAGT AAAGTGGACA 117720  
AAATAAAATG TGATAGAAAA TCTAAATCC TAATACATAA GGAGCACTTA TCAATTGATA 117780  
TTTACAAAAT CTTTTTACAA TTCAATTAAA GACAACATAA AACAAATAAG AATGGGGACA 117840  
GGAACAGAAA ATTCCCCCAA AGAAAAAAT ATATATACAT GGTACAGCCA TTGTGGAAAG 117900  
CAGTATGGAG TTCTCAAAAA TATTAATAA GAACTATCAT ATAATCCAGC AATCCCATCC 117960  
CTGGGTATAT ATCTAAAGGA AATGAAATCA GTACCCCAA GAGGTGTCTG CACTCCCATG 118020  
TTTATTGCAG CATTAGTTAC AACAGCCAAG ATATGGAATC AACCCATCAG CAGATGAAAG 118080  
GATAAAGGAC ATGTGATACA TATACACAAT GGAGTAGTAT TCAGCCTTAA AAAAGAAGAA 118140  
AATCCTGTCA TTTGCAACAA CATGGATGAG CCTAGAGAAC ATACTAAATG AAATAAGCCA 118200  
GGCATAGAAA GACAAATGCT GCATAGTCTC ACTTAGGTGT GGAATCTAAA AAAGTCAAAT 118260  
TAAAAAATAA TGTAAGCAG AGAATAGAAT GGTAGTTGCC AGGGACTCTG GGAAGTAGCA 118320  
GGGGTGGGGG TGGAGGGGAG GGGATGGGCA GAAGTTGGTC AAAAGGTACA AAGTTTCAGG 118380  
TAGACAGGTG TAAGTTCTGG GGATCTATTG TACAGCGTGG TGACTGTAGT TAATACTGTA 118440  
TTGTGTACTT AAAAATTGCT CACCAAAAAT GTTCTACCA AAAAAATGAT GTTTGGATAT 118500  
GTAAACAGT TTGATTTAAT CATTTTGACG TGTGTGTGTG TGTGTGTGTG TGTGTGTGTG 118560  
TGTATACATC AAAACATCAC ATTATATACC ATATACAATT AATATATACA ATTTTGTCA 118620

FIG. 6.45

AAGAAAAAAT GCACATGACC AATATGATAA AAGTTTAGTC TCACTAGTAA TAAAAATCAA 118680  
AATTAATGA AATAAAATT TCTTTCCCA AATCGCAAAA GAGAAAGAAA GGTAACTA 118740  
AAACACAGTC ACGGTGTAGT GAGAGGGCTG CTCTCACACA GGAATGATGA GAATAAAATT 118800  
GGAGAGCAGT GTGGTAATAT ACATATTTAA CAATGTATAT ACCCTCTCAT TTTAGAAATT 118860  
CTATATTAGA AATCCATCCT AAGAAAATAA CCAGGGATGT GATCAAAATT TTGAATGCAG 118920  
CAGCACAGTA TTATTTATAA TAGTTATAAA TAAGAAACAA CCTGAATGTC CAGCAACAGG 118980  
CAAAAATGAT AAATAAATTG TGGCATATTT AAGCTGGTGG CTCATGCCTG TAATCCCAGC 119040  
ACTTTGGGAG GCTGAGGCAG GAGGATCTCT TGAGGCCAGG AGTTTGAAAC CTGTCTGGGC 119100  
AACATAACGA GACCCAGTCT CTACAACATA TTTTAAAAA TTAGGTGGGG CATGGTAACT 119160  
CATGCCTGTA ATCCCAGCAC TTTGGGAGGC TGAGGTGAGC AGATCACCTG AGGTGAGGAG 119220  
TTTGAACTA GCCTGGCCAA CATGGTGTA CACCATCTCT AAAAAAATA CAAAATTAG 119280  
CCAGGGTGGG GTGCGTTCCT GTAGTCCAG CTAATCGGCA GACTGAGGTA GGAGAATCAC 119340  
TTGAACCCGG GATTCGGAGG TTGCATTGAG CTGATATCAT GCCACTGCAC TCCAGCCTGG 119400  
GTGAGACCCT GTCTCAAAAA AAAAAAAAAA AGAAAAAGAA AAAATTAGCT GGGCGTGGTG 119460  
CTGTACGCCT GTAGTCCAG CTATTCCGGA AGCTGAAGCG GGGGGATTGC TTGAGCCCAG 119520  
GAATTTAAGG CTGCAGTGAG CTATGATTGT GCCACTCCGC TCCAGCCTGA GTGAGAAAGC 119580  
AAGACTCTGT CTCTAAAAA AAAAAAAGTG ATATATTTT AAAATAGAGT ATATTACTTA 119640  
TATAGACATC AAAACAATA TTTCAAGGG ATATTTAAAA ACATAGGATC ATGACAAAAT 119700  
GTAAAGTTCA AAGGTAAGAT GGAGAATGGA GAACTGTGGG GAACTGTATA ATCTGACAAT 119760  
TCGTAGTTGC ATACATCTTT CTGTGTGCTG GTGCTGTTAG AACACTTTGT ACGCATCACC 119820  
TCATTTAAGT TCAGCATCCC TAGGTGGCAG ATACTATTAT TATATTCCAG TTTTGTTC 119880  
CGTTGTATAT GCGGTGTGAG CCCCAATATG GGATGTGTGT GTGCACATGT GCAGTATTTG 119940  
GAAAGTTCTA TGAAATATTA TTAGTGGTTA TCTCTGGGAG GTGATTTTTA TTCCTTTTCC 120000  
AGTATGTTCT CAAGCATTTG CTGCAAGCAG TCTTTTGGG GGCCAGGGTT GAGAGGCAGC 120060  
AGCAGTTTCC CTAATTACA GATAGAGGGA GGTAGGTGGT TATGCTTGGC CAGATCTCTG 120120  
TCTAGGGGTA GAGGAGTGCC TGTGTGTGGG TAGGGACACC GCGGGGGGC TTTGCCAAAC 120180  
ACAGTGGAAC TGTCACGCTG GTCTCTCTC TCAACTCTT CACTCACCTG AGAAAAAGGT 120240  
GTCTATGGAC CATGCACACT TCTGTGGGGA ATTTTACAAG ATGTGAATCA TCAGTGATGA 120300  
AGATGCTTTC ATTTAAAAAG AATTGGAGTA CCTGAGATTA GAGATAACTT CTACCCTTTT 120360  
AAAATATTTT TAAAAATTC TTTGCACTGA TTTTTTTCT TCGTTTTAT GAGTTGTTTT 120420  
CATTTGGGTG GGATAACTCA ATCTACAGGA GAATATTAAG ACTTTTTAAA TTTTAAAAA 120480  
TATACTTTCA AATACTTAAT ACATTTTGTG TTAATGACA GCCAGCAGAT ATTGACTGAA 120540  
TTGGGCTAGA TGCTTCAGGG ATCTCCCTTC CATTTAAGAC TCTCCGAGAG GCCATTCCTG 120600  
ACTGCAGGTC ACTGTATTAT TTTAATTTT AAAATTTTCT CTTACTTATT TTATTTAATT 120660  
TTATTTTTTG AGACAGAGTC TCACTCTGTC GCCCAGGTTG GAGTGCACTG GCACAATCTC 120720  
AGCTCACTGC AACCTCCACC TCCCGGGCTC AAGCGATTCT CCTGCCTCAG CCTCCTGACT 120780  
AGCTGGGGTT ACAGGTGCAG GCCACCACAC CCCGTTAATT TTTGTATATT TAGTGAGATC 120840  
AGGGATTGCG CATGTTGGCC AGGCTAGTCT CAACTCCTG ACCTCAAGCG ATCCTTCCAC 120900  
CTCAGCCTCC CAAAATGCTG GGATTACAGG CCTGAGCCAC CCCACTCGGC CTACTTTATT 120960  
AATCCACTTG CAGAAACAGG ATATACACAA AAACGTTTCA AGGCTGTAAG TGCCACTGCA 121020  
TGGCACCAAT GGTAACGTT TTACAAATTT GAGTCAGGAA CAATCATTAG TGCTACTAGC 121080  
AACAAAAATC AAAATTAAAT GAAATAAAAA ATTTCTTTCC CCAAATGGCA AAGGAGAAAG 121140  
AAAGGTAATA CTAACACGCA GTCAGGGTGT AGTGAGAGGG CCGCTCTCAC ACAGGACTGG 121200  
TAAGTACAGA GCCATGGAGT AAGCAGGTCT TGAGCTGACA CTGGAGAGGA TCCTTTTTTT 121260

FIG. 6.46



TTTTTATTTT TATTTTTTTA GAGTCAGGGT CTTGCTTTTT TACCCAGGCT GGAGTACAGT 121320  
GGTGCCATCA TAGCTCACTG CAGCTTCAAA CTCCTGGGCT CAAGAGATCC TCCTGCCTCA 121380  
GCATCCCCAG TAGCAGGGAC CACAAGTGAG AGGATCCTTT AGTGTGTCA AGGAGAAGGA 121440  
ACAGAGGTGT GGATGGGTGG GCACAGACAC AGGAGCACAG CTGAAGCAGA GGATTACAAA 121500  
GGGTGGAGCC TGATGTAAAG AAACCTAATA GGTGACAGAG CATGGAGGCT CTTGAATACC 121560  
AGGCTGGAAA CTGCATTAGG AACGGTGCTC ATAATTGCAG AAAATTTTAC ATGGCCTAGA 121620  
TAGTCATCAA AGGATGATGT ACAAACAAC ATGGCATATT TATACAATGT GCCGACAGGA 121680  
TGCACTGAAC ATTTTGAACA ACAAAGAGAC TTGATAATGG CGAGGTTTTG AGGAGGTGAA 121740  
TCAGGATGCA AAAAAAGCAA ACAACTAATA AAGTTGATTG ATGACAAACA CTATCAAAAG 121800  
GCAGCCAGGA GAAAAGCTAC TGGTTACCTC CAGGGAGCTG GTGAGGGAGG CTGGGTGGGA 121860  
GGATCTACCC TTCTGAATTC TGAGGGCACC TCCAGTGTGG CCCTCAGAAA GCAGGAGCTT 121920  
CCAGGCTAGA ATCAGATCCC GACATCCCTG TTAATTCCAC GGATTCCACA CCGAGTCAGA 121980  
TTTATGATTT ACTATAGGGT TTTAAAAACC AAATTGCAGG GATGCTAGCC TATCACAGCT 122040  
TATCTCAGAC ATTGTCCACT AAGGTATACA GAGTGCTGCC TGTTCCTTTG GTACCCCTAAT 122100  
CAGGAAACCC CATCAGATCT GCTCCTTCCT ATGGGGTAGT GAGTAACACG AAGGCTTACC 122160  
ATCTCACACA GATAACTGGT CATAGGTCCA GCAGAAGTTT AAAACAGAAA ATGAGGAAAG 122220  
CCATGTGATT AACTGCTGCC AGACTGTTT TGTACAAAC AGCAGTTCCT TAGGCATTGC 122280  
CTGGGACATG CAATAATTC TGTTACACAA TCTGTGGTAG TTAATATGCT GCACGATGAA 122340  
AGCTATCTGA TTTGGATTCA TTATTAGGTG AGCCATCTCG TCTGCAATTT GGTTCCACCA 122400  
TTTTCATTTA ACAAATGTAA AAAAGTTTAT TAAGCTCTTA CAAAGTTATG CTGGGCAAAT 122460  
ATGCAAAAGT CCAGATCACC TACCGCAGGA ACTAATCTAG CCTCCTCTCT GGGCACCCCTG 122520  
TTGTTTGGGG CTGGGCAGTT CTTTCCTGTG TAGAACCATC TAGGGCTGAA TAGGTCATTG 122580  
TGACACCTGG GCACCTCTGC CTGCTCGTAA ATGGGACAAT CAGAAAGGGC CCTTATGTTT 122640  
CCAAACTTTC TTTAAAGTAG CTGTTCTGAA AACATGGTCC AGGGACCCCT GATTGTCCCT 122700  
GAGACCTTTG AGGGGATCTT CAAGGTTAAA ATTAATGTCA TAATAATACT AATATGTTAT 122760  
CTGTCTTTTT TCACTCTCAC TTTCTCACAC GTGAACAGTG GCATTTTCCA GGTGACAGAG 122820  
TGTGTGATAA TGAACCTAAC TGAATGCAGA AGCAACATG AGAACCTAGT TTTTCAATC 122880  
AAACCAGACG TGAAAGAGAT TTGCAAAAAT GAAAAACAA TGCTATCCTC CTCACAATAT 122940  
TTTTGTTTTA GAAAATAAAG TTATTTTTCC TAGAAATGTT TTTGAGTTTA TCAGTCATAG 123000  
GTTTATTATT ATAATTAAAA AATGAAATAT ACATACACAG ACATATTTT TAAAGTTCTC 123060  
AGTTTAAATC TCTTTTTTTT TTTTTTTTTT TTTGAGACGG AGTCTCGCTC TGTCGCCCAG 123120  
GTTGGAGTGC AGTGGTGCGA TCTCAGCTCA CTGCAAGCTC CGCCTCCCTG GTTCGCGCCA 123180  
TTCTCCTGCC TCAGCCTCCC GAGTAGCTGG GACTACAGGC ACCCGCCACC GCGCCCGGCT 123240  
AATTTTTTGT ATTTTATAGTA GAGACGGTGT TTCACCATGT TAGCCAGGAT GGTCTCGATC 123300  
TCCTGACCTC GTGATCTGCC CACCTCGGCC TCCCAAAGTG CTGGGATTAC AGGCGTGAAC 123360  
CACCACGCCC GGTCTCAGTT TTAATTTCTA ATACAGTAAG TATTGATCAG TGTGCCCCAC 123420  
ATTAGTAAAA GCTCTTGGGG TCCTCAGTAC TTCTTTTAA GAGTTGTCAA GGAGTCCTGT 123480  
GACCAAAAAT AGGAGAGCCA CTGCCCTAGA AGGACAGCCC CAGCCCGGGT CAGGAACAAC 123540  
TGGGACAGAA CCTACTGCTC CTAGTGGATT GTAATATGAT AGGATTTAAC CTTCAAGGTT 123600  
TCAACTCTTG GCAAGAGTCC ATGAGGGGCC ATGGTTTGTG CTGAGCATTG CTTACTGTTA 123660  
ACAGGAGCAA GTTCCTTAGG CTGGTGAGCC AAGCCAGCCT GACGCTGGCC ATGGACATCT 123720  
TAGTGGGCTG CTTGTTCTAG TGTGGGTTTT CATTTTATGG GAAATGTCAT CTGCTCTAAG 123780  
GCTCTTCTCA TTTGGGGAAA TCACAAGTTC TCAGAATGTT TGTCTCTCTT GGTTGGGGCC 123840  
TCTATAATTA AATTATAAAA CAGAGGTAAT GGTTAAGTAA TGCAAGATTT GACAGAAACC 123900

FIG. 6.47

ACAGAGGATT TAGGGTTTAA TTTGAGTGAG GCAAAGGGGG GATGAAGATG AGCGGTCCTG 123960  
GAGACAAGAA AAAGATTGGA TGAAGCTGGG CACGGTGGCT CACGCCTGTA ATCCCAGTAC 124020  
TTTGGGAGGC CAAGGTGGGC AGATCACTTG AGGCCAGGAG TTTGAGACCA GCCTGGCTAA 124080  
CATAATGCAA CCCCGTCTCT ACTAAAAATA CAAAAATTAG CCAGGCGTGT TGGTGTGTGC 124140  
CTGTAGTCAC AGCTACTTGG GAGGCTGAGG CATGAGAATC GCTTGAATCC GGGAGGCAGA 124200  
GGTTGCAGTG AGCAGAGATC ATGCCACTGC ACTCCAGCCT AGGCAACAGG GTGAGACTCT 124260  
GTCTTCTTTT TTTTGTAGAC GGAGTCTGTC GCCCAGGCTG GAGTGCAGTG GCATGATCTC 124320  
TGCTCACTGC AAGCTCCGCC TCCCAGCTTC AAGCGAGTCT CCTGCCTCAG CCTCCCGAGT 124380  
AGCTGGGATT ACAGGCATGT GCCACCACAC CCAGCTAATT TTTATATTTT TAGTAGAGAC 124440  
GGGGTTTCAC CATGTTGGTC AGGCTGGTCT CAAACTCCTG ACCTCGTGAT CTGCCCCGCC 124500  
CGGCCTCCCA AAGTGCTGGG ATTACAGGTG TGAGCCACCA TACCTGGCTG AGACTCTGTC 124560  
TTTAAAAAAA AAAGAGAGAG AGGGAGAGAA AGATTGGATG AAACAACAGA GTGGGGAGGA 124620  
CCTGTGAGCT TGGTAGCTTG GTGAAGGCAG GGCTTTATTG GGGGCCTTAG AGGGGATCCA 124680  
ATAAAGGTTT CCAGTCATGG TAGTGACCTA AAGAAAATAG CATTTTAACA TCTTTCATTT 124740  
CATAATAGAC AGTCACAGTT TACAAGACCC TTTCCATACA TTCCTTATGA CATCCATACT 124800  
ACAGCCCAGA GGCAAGTTGT GCACTCTCTC CTCTCACAAA TACAAAAACT CAGCCTCTAG 124860  
AGGCCAGCGA CTGCTCAGG GTGATGTGCA ATTCAGGGAT GACAGAGTCG AGGCTCCCAG 124920  
CCCAGTGGTT ATCCCTCACA GGCACGTTGC CTGTCACTGT GCAGTATAAA ACTTTGTACA 124980  
AGAAATCAAG TTGCATTAGT CAGTCGGATT CCCCAAATGA TCACATTGTA GATGGTGTAT 125040  
GCTGTGGGCA GAGCAAGGGC TGCTGTTTCT TGGGCAAAAC AATCAGTCCC CCTCCCCCCC 125100  
AAAATAAATG AATGCCAATG GTGTGACTTT ATTTTATTTA TTTTATTTT ATTATTATT 125160  
GTGAGACAGA GTCTCACTCT TTCACCCAGG CTGGAGTGCA ATGGCATGGT CTCGGCTCAC 125220  
TGCAACCTCT GCCTCCTGGG TTCAAGCGAT TCTCCGCT CACCCTCCCG AGTAGCTGGG 125280  
ACTACAAGTG CATGCCACTG CACCCGGCTA ATTTTGTAT TTTTTTAAG TAGAGACAGG 125340  
GTTTCACTAT GTTGGTCAGG CTGGTCTTGA ACTCCTGACC TCATGATCCA CCTGCCTCAG 125400  
CCTCCCAAAG TGCTGGGATT ACAGGCATGA GCCACCGCGC CCAGCAATGT GACTTTATAA 125460  
TTACAGAATG TAGGACTCAG CTCCCACTAT TGTATGACT CAATATTCTC TTAGATAATG 125520  
TTTGGGGCAC TAGCTTACAG GCAGCATTGC CCGGTGGTTA ATGTTGTAGC TTTGCAGGCA 125580  
GACTGACCAT ATTAATTC GATCACACCA TTTGCTAAGC CTGTGGACTC GGGCACGCTT 125640  
CTTTCTCTGC GTTAGTTTCC TCCTCTGTAA AACACGGATG ATGCTATAAA CACACCCAAG 125700  
TCCTAGAATT GTTATATGAG TTAGAAAAGA TAGGCAAATA CAACTCTCAC AAGACAGCCT 125760  
GGCCTCCAGT AAGTGCCACT GAGTGTTTGC TCTTATTGTA CAGTGGCTCC AAGTGCTTCT 125820  
GTCTTGATT ATTTCTGACC AGGTGGCTAT GTCTCCTAGT AACTTACCA TCCTGTTGAG 125880  
TCTTAATAAG CACGTCTTTG ATGCCTACAG TCGACTGAA TTTCCAGGCC TCATTACTGG 125940  
AGACACAATC ATCCTATATG CTTTTTCCA TTTGTTTTTA ATAAAGTGGT ACATGTGTAT 126000  
GGCACCAGAT CAAACAGTAC AGAACAAGTT ACAATGGAAG AGAATGGCCT CCCAGCTTTC 126060  
CTGAAATCCT CAACTCAGAG ACAACTTTTT TTTTCTGAC GGTTCCTTA TACAGCCCTT 126120  
TTTGTGGTTA CCTTCCTAAC TCTAGAAAAA CTATTCTTAC CTCTGTTTAT TACTTAGAA 126180  
ACATTAGACG TTACCTTTCA ACTCCTCAGT ATGAAGCTTT AGTTTTCAGC ACCCAGGCC 126240  
ACCACTCTCT TTCCAGGACT TACTACTTAT ACTGGTGGTA GGTGGAATTT TAAATTCAT 126300  
CAGCATTCTT TTGTGATTCT CTGTGTGTTT CAGTTTTACA GCAACCCGTA CTGTGTCAT 126360  
GAGTACAGTA GAACTGGGAG GCTCATAACT TAGCCTGCAG GACTTTTCAC TTAAAGCCTG 126420  
GCCCTCAGGG TGATGTCACC CACCTCATTG TGCCTGGCTC AGGAGTTTAG TCCCTCAGTT 126480  
GCCTGGTTGT ATAGTTTGGA TGTCAGCAC CTCCAAATCT CACATTGAAA TGTGATCTCC 126540

FIG. 6.48

AATGTTGGAT GTGGGGCCTG GTGGGAGGTG TCTGGGTCAT CAGGTGGGTC CCTCTTGAAT 126600  
GGCTTGGTGC CTTCCCCATC GTAACGAGTG AGTTCTTGCT CTGGCAGTTC ACACAAGAGC 126660  
TGGCTTTTTA AAGGAGCCTG GCACCTCCG CTCTTTCTCT TGCTCTTCCT CTTCCCTTCC 126720  
TTTGTCACTA AAAGCTTCCT GAGCCCTCAC CAGAAGCGGT GCAGATGCTG GTGCCATGCT 126780  
TGGACCTCCT GTAGAACTGT GAGCCAAATA AACTCTTTCC TATAAATTAC CCAGTTTCAG 126840  
GTATTCCTTT ATACAATGCA AAACAGACTC ACACATCTGG TAAACCCAG TTGTTTGCTT 126900  
CTAGGTAAGA CGGGAGGAGT GGGGAGCTGG TGAGGGTTTC CACTGCATTG TCTATTTTCA 126960  
GGCAAGGTGT CTCCACTGAG TAGGCTTCAC ATTCAGAGCT CTGGGTAAGG TGGGCAGGAA 127020  
GAGGGTTGCA GGCTGCCCAA AGGAGGGAGA GAAGAAGGCT GAATCCTTCA GTGACAACCT 127080  
GTGAACCAGA GTCTTAGCTC TCTTTGAATA TTTTGTTTCA TATCTTTGGG TTTTGTTTTA 127140  
TTTTGCCTAG GGGTAAATGC TGAAGCTGCTG TTCTCTGGAC AGGAATGGAG AAGATGGTGC 127200  
TAGCAGGGTT GCTGTTTATA TGAGACATT CATGCAGTCA CTCTCTTTTC AGCACACTTC 127260  
TTACTTCTGC CCTGGGTTCA GTTGCTGACT CTGAGCCCAG AAACCTTCTA GGGTTCTGTT 127320  
AGGTAGATTG GCTTCCACCG TCTTTGCGAC AACCACAGAA AATTCTAGAC TGTTTTCTCT 127380  
TCGGGCTTCA TTAGTCAACT TGCTTCAGTC TGTCTTGCAT CTTCTAAATA TTTATAGATC 127440  
TCTCTCTTT GTTGGAGTGG CAGAAAATGC TAGTTGACCA CCAATATTC AAATTATCCT 127500  
GCCTCCTTAA TAACAGAATA TCATTGGATG TGGTGGGTAA ATAATATACC CTAACCTTCC 127560  
TTGCAGAGAG GGGTGGCCAA TGAGATGGAA ATGAAAGTCA TTGGGAAAGA CTCCTAAGAC 127620  
ATCTCTTTAA ACAAGACAGA CTGAAGCAAG TTGACTAATG AAGCCCCAAG CTAGCAGTTG 127680  
TTTTTGTTA TCTTTGCCTC TTTCTTCTC TTCCTGTGGG GACAAAGGGC AGTGATATCT 127740  
GGAGCTGCAG CAGCCATTTT GGCATAATGT TGGAAAAGCC AAGAGACTCT CAGAGACCGC 127800  
AGCTCCAGCA GTTTTTTATT TTTTCCAAAT ATTTGCTCCA CTGCAGGAGG ATGAGATATT 127860  
CGTGTTTGTT GCCTTGAGT TGTAGGAGGA CTGCACCTCC CTGCCTTGTT GTCAAGTTTC 127920  
CCCATGTGGT CTGCTTTGGC CAGTAAACA TGAGTGGGAG AAGCTTGGTG AACCATGCA 127980  
TGTCTACCAG CTTTTTTGCT CTCTCCCTT TGGCATTAGA AAGGCATGTC CAGGATGGAG 128040  
TTGTTCTTTC AGCCTAGATT GGGTTATGAG AAGCTAGCTG GGGGAGTCCA GTAACATATA 128100  
AAGCGAGTTA GAAATAAAAC TTTGTTGTTG TAAGCTATAT ATATATATAT ATATATATAT 128160  
ATATATATAT ATATATATAT AATATGTATG TAATATATAA ATACATATTA TACTTTAAGT 128220  
TCTAGGGTAC ATTTGCACAA TGTGCAGGTT TATTACATAG GTATACATGT GCCATGTTGG 128280  
TTTGCTGCAC CCATCAACTG CTCATTTACA TTAGGTATTT CTCCTAATGC TATCCCTCCC 128340  
CAGCCCCCCA CCCCTCAACA AGCCCTAGTG TGTGATGTTT CCCTTCTGT GTCCAAGTGT 128400  
TCTCATTGTT CAATTCCCAC CTATGAGTGA GAACATGTGG TGTGTTGTTT TCTGTCCTTG 128460  
TGATAGTTTG CTGAGAATAA TGGTTTCCAG CTTCAATTCG GTCCCTGCAA AGGACATGAA 128520  
CTCATCCTTT TTTATGGCTG CATGGTATTC CATGGTGTAT ATGTGCCACA TTTTCTTAAT 128580  
CTAGTCTATC ATTGATGGAC ATTTGGGTTG GTTCCAAGTA TTTGCTATTG TGAATAGTGC 128640  
CGCAATAAAC ATATGTGTGC ATGTGTCTTT ATAGTAGCAT GATTTATAAT TCTTTGGATA 128700  
TATACCCAGT AATGGGATCA CTGGGTTAAG TGGTATTTC AATTCTAGAT CCTTGAGGAG 128760  
TCGCCACACT GTCTCCACA GTGGTTGAAC TAATTACAC TCCCACCATC AGTGTAAGG 128820  
CATTCTATT CCTATGTCTC CACATCCTCT CCAGAATCTG TTGTTTCTG ACTTTTAAAT 128880  
GATTGCCATT CTAATTGGCC TGAGATGGTA CCTCATTATG GTTTTGATTG GCATTTCTCT 128940  
GATGACCAGT GATGATGAGC ATTTTTTCAT GTGTCTGTTG GCTGCATAAA TGTCTTCTTT 129000  
TGAGTAGTGT CTGTTTCAAT TGTGTTGTTT TTTTGTGATG GGGTTGTTT TTTTCTTTCT 129060  
TGTAATTTG TTTCAAGTCT TTGTAGATTC TGGATATTAG CCCTTTGTCA GATGGGTAGG 129120  
TTGCAAAAAT TATCTCCCAT TCTGTAGGTT GCCTGTTTAC TCTGATGATA GTTCTTTTGT 129180

FIG. 6.49

CTGTGCAGAA GCTCTTTAGT TTAATTAGAT CCCATTTATC TATTTTGGCT TTTGTTGCCA 129240  
TTGCTTTTGG TGTTTTAGAC ATGAAGTCCT TGCCCATACC TATGTCCTGA ATGGTATCGC 129300  
CTAGGTTTTC TTCTAGGGTT TTTATGGTTT TTAGGTCTAA CATTAAAGTC TTTAATCCAT 129360  
CTTGAATTAA TTTTGTATA AGGTGTAAGG ATGGTTTCCA GTTTCAGCTT TCTACATATG 129420  
GCTGGCCAGT TTTCCAGCA CCATTTATTA AATAGGGAAT CGTTTCCCCA TTTCTTGAGC 129480  
TACAGATATT TTGAGTTTGG TTACCACAGT ATTATCTAGT GGAAGTTGAC TTATACAGTA 129540  
TGTAATAGGA TAAATATAGG TGTGTAACAG AATATTAAGT GTTCGTGTTT CAAAGCTGAG 129600  
GGGAAAATGT TAAAAGTGT CACACACTCT AAAAAGAGAT TAGCTAAAAC TGCTTCATTA 129660  
ACCACACTTT GGGGAAACCA GTTCTGAGAT TCTTCTCCAT TACTCTGACA GGTGGACCC 129720  
TCTGGGGAGC AGATCTCAAG ATCAAGTTAT GAGTGCAAGA GGTGTGTTGG GAAGCGATGG 129780  
TTGTAAAAGA ATCCTGCAGT AGCACCAGGC ACAAGTCTGT CCAGGGAGAG GAGGACTTCT 129840  
ACTCTCTACC AGCATCTCTC CTAAGTCCCC TTAGGGGACG GGGGCAAGGA AGTGCTGGGA 129900  
AGGGCAGGGC ATGGTTCTCTG GCTAGGACTC CACCCCCCTG GGGCCTGTAC CCACGGACCT 129960  
AGGTGAAGAC AGGCACTCCT GCCTTCTCGC CCAACGGTTG CGTTTCCCAA GATCATCCTG 130020  
GCCTGCCACG CCCCCATCTA CCTATTAAAC TCCCCACCT TCCCCAAACC CTAGCAGGCA 130080  
GACACACATC GGTGGAAGAA GACAGGAGCG GCTGGACATT GAAAGGACGT CGAGAGGAGC 130140  
ACACCTGCAC ACCATCGACC AGCGGAACGA GGCAGAGTGT GGCTGGAGCA GTCGGAGGGA 130200  
AGCCTGGGCC GCTGACTCCA GGGGAAAACC ATCTCCTTTC TGGCTCCCCC CTCTGCTGGG 130260  
AGATACTTTC ACTGAATAAA ACCTTGCACT CATTCTCCAA GCCCACCTGT GATCCGATTC 130320  
TTCCTGTACA CCAAGGCAAG AACCTGGGAT ACAGAAAGCC CTCTGTCTT GTGATAAGGT 130380  
AGAGGGTCTA ACTGAGCTGG TTAACACAAG CTGCCTATAG ACAGCGAAAC TGAAAGAGCA 130440  
CACAATAGCA CACACTCATT GGGGCTTCAG GAGCTGTAA TATCCACCCC TAGACGCTGC 130500  
CATGGGGCGG GAGCCCCACA GCCTGCCCGT CTAGAGGTTT GAGCAGCGGG AACTGAAGA 130560  
AGAGAGCCAC ACCCTCATCG CACGTCCTGC GAGGGAGACA AGGGAACCTT TCCGTTTCA 130620  
CTTCTGCTTG GCTTGAGCTG GCACTGAAGC ACCCTTTTCC CTCCTCACTG AGGGAGCAGA 130680  
GGGGAAAAGC GGTAGAACTA ACAGGCTAAC AATGCTCCTC CGAAAATATA TCGTATTTTT 130740  
GGATCCCTAG AGATAGGTGA TCACGGCAGC CGCGGAGTGC ATTTGGGTCT CCTTCAAGA 130800  
AAGAACTTGC TGCTCAGCGT TGAAGAATGC AGTTGGCCAA CAGCCTCCAG CTGCTCTGTC 130860  
TTCAGCATCT GCCATGGCAT CTGAGCTGAG GTCATGTTCT TCCTGGGAGG TCCCCAGCAG 130920  
AAGGATCACG TGGAAGCTCC ACAAGCTCCA CAGATGTTCC AGGAGAGGAA TAGGCAGCAT 130980  
TTGGAAGACA TATCCTGCCA TAACAGAGGG CATTGCTAG TAGAGACAAC AAACAGCAAC 131040  
AGCCAAGTAA ACAAACACAC AAGCACAAAG CACTTCTCC CATTTCCTT CATTGATCCT 131100  
GTCCGGGTAG AAGCTGGGGA GGAAGTAGAA TAGGGTGAGG CGGGGTGGGG CTGGGGGGCC 131160  
TACACCTTCT TCCTTCCCC GCAGGTCCTG TCCCTGGGCC AGGCTTGAAC TAGGGGAATG 131220  
GGAAAAGCTG TGAAGTGAAT GAGAATTAGG AGTTTTTATT TAGACTGGAC TTGAATTTTT 131280  
TTTTTTTTTT TTTTTTTTTT GAGACAGAGC CTCGCTCTGT CACCCAGGCT GGAGTCCCGT 131340  
GGCGCCATCT TGGCTCACTA CAGCCTCTGC CTCCCGGGTT CAAGCGATCC TCCACCACA 131400  
GTCTCCTGAG TAGCCGGGAT TACAGGTGCC TGCCACCATG CCCAGCTATT TTTTTTTTTT 131460  
TTTGTATTTT TAGTAGAGAC AGGGCGTCAC CGTGTGGGCC AGGCTGGTCT CGAACTCCTG 131520  
GCCTCAAGTG ATCTGTCCGC CTCGGCCTCC CCAAGTGCTA GGATTATAGG AGTGAGCCAC 131580  
CACGCCCTGGC CTGGACTTGA ATTTTAAATT CCTAAAAATG AACTACCAGT TAAATTTAA 131640  
AAATGACCAA AAAAGCTATG GGATATGCTG ATGTTTTGCT TTGGGGATAA GGAAAAGATA 131700  
TCTGGTTGAG CGGCATTGAA AACAGTGTAG GGAGAGAAAA ACTCATTCCT GGCTCACCCT 131760  
TTTGAGTCCC ACTATCTCAA TAATCTGATG TTATATGACA CACACACACA CACACGGAGG 131820

FIG. 6.50

AATCCTGGAA GACTCCATAT CAAGGTGGTG ATGAAGGTGA CCAGTGGGTG ATAGGATTAT 131880  
AGGTGTGTGT TTATTTATTT ATTTTAATTA CCTTTTTTTA GAGACAGGGT CTCTGTCATC 131940  
CAGGCTGCAG TGCAGTGGTG TGATCATGGC TCACTGCAGT CTTGCACTCC AGGGCTCAAT 132000  
CCTCCTGCCT CAGTCTCCTG AGTAGCTGGA GCTGCAGTCA TGCACCAACG TGCCCACTA 132060  
ATTTACTTTA TTTTATTTTT TATTTTTTGT TAAGATGGAA TCTCACTTTA TTGCCTAGGC 132120  
TGGTCTTAAA CTCCTGGTTT CAAGCATTCC TCCTACCTCA GCCTCTCAA GTGCTGGAAT 132180  
TACTGCACTT GGCCCTATTA TATTTTTAAA AAATTCAAT AGTTTTAGGG GTAAAAGTGG 132240  
CTTTGGTTAC ATAGATGAAT TGTATAGTGA TGAAGTCTGG ATTTTTAGTG TACCCATCAC 132300  
CCAAATAGTG TACATTGTAC CCAATGAGTA GTTTTTCAAT CCTCACCCCC AACTGTCCC 132360  
CACTTCTGAG TCTCCTGATG TCCATTATAG CACCCTGCTT TTGCGCACTT AGAGCTTACC 132420  
TCCCACCTAG AAGTGAGAAC ATGTGGTAGT TGGTTTTCCC TTCCTGAGTT ACTTCACTTA 132480  
GGTCAGTGGC CTCCAATTC ATCTGAGTTG CTGCACATAA CATGATTTC A TCTTTTTTTT 132540  
GACTGAGTAG TAGTCCATCT CTCTCTCTCA CACACACACA TACACACACA CACACACACA 132600  
CACACACACA CACATTTATC CACTCATCCA TTGATGGGCA CTTAGGTTGC TTCTATATCT 132660  
TTGCAATTGT GAATTGTGCT CCAATAAACA TACATGTGCA AGTGCTGTTT TTTCTCCCTT 132720  
TTATCCTTCT TTTCTCCCT ATGCTCCAT AGGTACTGAG AAAGAGTCTT TTTTATATAA 132780  
TTATTTCTTT TCCTTTGGGA AGATACCCAG TAGTGGGATG GCTTGATCCA ATGGTAGATC 132840  
TGTTTTAGT TCTTTGAGAA ATCTCCATAT TATCTCCATA TTGTTTTCCA TAGAGATTGT 132900  
ACTAATTTAC ATTCCCACCA ACAATGTATG TGTTCATTT TCACTGCATC GGCACCAACA 132960  
ACGGTTGTTT TTTGACTTTT TAATAATGGC CATTCTGGCT GGGGTAAGGT GGTATCTCAC 133020  
TGTGGTTTTA ACTTGATTT CCCTGATAAT TAGTGATGTT GAGCATTTAA GAAATATATT 133080  
TGTTGGCCAT TTGTATATCT TCTTTAAGA AATATCTCTT GAAGTTGTTT GCCCACTTTT 133140  
TAATGTGATT ATTTGTTTTT TTTCTTGCT GATTTGTTG AGTTCCTGT AGCTTCTGAA 133200  
TATTAGTCTT TTGTCAGAGG TATAGTTTGC AAATACTTTC TCCCATTCTG TAGGTTGTCT 133260  
CTTTACTCTG TTGGTTATTT CTTTGTCTAT GCAGAAGCTT TTTAGAATAA TTAGGTCCCA 133320  
TTTACTTATT TCTGTTATTT TGTTGCATTT GTTTTTGGGG TGTTAGTCAC AAATCTTTG 133380  
CCTAGACCAA TGCCAGAAG AGTTTTCTT AGTTTTCTT CTAGAATTTT TATGGTTTCA 133440  
GGTCTTAGAT TTATGCTTT AATCCATCTT GAATTAATTT TTGTATATGG TGAGAGATAG 133500  
GAACCCGGTT TCATTCTTTT AACTACATG TGGCTATCCA ATTTCCCAG CACTGTTTAT 133560  
TGAATAGGAT TTCCTTTCCC CAGTGATGT TTTGTTTGT TTGGCTGAAG ATCAGTTGGT 133620  
TGTAGGTATT TGGTTTTATT TCTGGGTCT CTATGCTATT CTACTTTTAT ACCGGTTCCA 133680  
TGCTGTTTTG ATTACAATAG CCTCGTAGTA TAATTGAAG TTGGGTAATG TGATGCCTCC 133740  
AGATTGCTC TTTTTTGCT TAGGATTGCT TTGGCTATTT GGACCCCTCT TTGGTCTCAT 133800  
ATAAATTTTA GGATTGTTTT TTCTAATTCT GTGAAAAATG ACATTGGTAT TTTGATAAGG 133860  
GTTGCACTGA ATCTGTGGAT TGCTTTGGGT AGTATAGTCA TTTTACAAT ATTGATTCTT 133920  
CTAATCCATA AGCATGGTAT GTTCTCCAT TTGCTGTGT CATCTATTAT TTCTTCATT 133980  
AGTGTGTTGT AATTCTCCTT GTAGGGTCT TACACCTCT TGGTTAAGTA TATTCCTATG 134040  
TATTTATTTT TTATTTTTTG CAGCTATTGT AAATGGGATT GAGTCTTGA TTTGATTTTG 134100  
AGCTTGGCCA TCATTGGTGT ATAGCAGTGC TAGTGATTG TGTACATTGA TTTTGTAACC 134160  
TAACACTACT AAATCACTT ATCAAATCTG GGAGATTTT GAGGATTCCT TAGGATTTTC 134220  
TAGGTATGAG ATCATATCAT TGGTAGAGGT AGTTGAGTT TCTCTTTCC AGTTTGATG 134280  
CCCTTATTT CTTTCTCTG CCTGATTGCT CTGACTAGGG CTCTAGTAC TATGTTGAAT 134340  
AGAAATGGTG AAAAGTGGGC ATCCTGTCT CATTCTAATT TTTAGGGGGA AATGCTTTCA 134400  
ACTTTTCCCC ATTCATTTTG ATGTTGGCTG TGAGTTGTC ATAGATGATT CTTACTATTT 134460

FIG. 6.51

TGAGATATAT TCATTTGATG CCTAGTTTGT TGAGGGATTT TATCATAAAA GGAGGCTGGA 134520  
TTTTATTGAA TGCTTTTTCT GCATCTATTA AAATGATTAC GTTTTTTATT TTTAATTCTG 134580  
TTTATGTCAT GAATCACATT TATTGACTTA TGTTTATTTG TTGCTTACAT CTACTTTCTA 134640  
ATTTTACTAT AATAACATG TATAATTTTG TTATCAGAAA AGTAAATGTA AAAGTGAGTT 134700  
TTAATTTTAA AACTTGGGCC TAAGTCTTCC TGCTCCCAA GCCCATTCCC TTCCTGATAT 134760  
CTGGGGCTTC CCTCCTCAAG CCTGCTCTGC AGGATAAGGG GATACAGTCC ACATGCCTGC 134820  
TGCTGGTTTG GCCCATGATA ACCTCCATGG GCAATGTCTG AGCCTCTGCT GTTGAGTTTT 134880  
GCTTTACACA CTCCTGGCAA GGAAAGGATG GCCAACATGG CTTGGACATG GGTGCTGAT 134940  
AATTGGTGAT GTCTCATGAC TGGTTCTGCC TGGAGGGCTT GCTGTAAGTC CCTGATAGGA 135000  
GGAACATGGA CCTGCACAAG AGCAGAACTT ATCTGACACT GAAGAGGACA CTTCAAGAAC 135060  
AGATTATCAA AGTCTAGCTC AGGGAGAAAT ATACTTTAGA GCAGAATGAG GAATGGCGAG 135120  
GCAGCTGAGC TTAGACACAA GCAGAAGGAA ATCCATGGTG AGGGCACAGG CAAGGAAAGG 135180  
GGCTGAGAGA GCATTAGTGG GGGCAGTCAG GGGCAGTGGT CAGGATGCTC GGATGCCAGC 135240  
GTGAACAATC GCATCAAGAT TAAACACCAT GAGGATCGTT AGACTTCCTG TCATATGTCT 135300  
CCAGGTGGTG CTCAAATAT CCTAAACCAG ATGACAGCAC CCCTCCACCC TCTGCTGTAT 135360  
AAGCACATCT GCTCTCCTAT AATCATTCCC ACATAGCAAT TTATCATTTT TATTGATTTT 135420  
TCTTCATTTA ATACACGTAT AAGTGTGTCT TTTATTTTAA AAAATTGCA TTCCTTTAAT 135480  
TGCTTTGGAG ATTGTGCATT TTTCTCTCTG TTGATTTACT CTGCCAATAA ACATGTAATC 135540  
CTACCATAAG CATGTTTTAC TTGTGTAATC AACCAAATA AAAAATTTAA AAAGGAATCA 135600  
CTGACTATGA ATTAGACATG TGGATAGGCA CCAGGGTTGC AGACATGGCC CACGTTCCTG 135660  
CATTAACTTG CACTGTGGCT GGGGCATTGG ATGGGTACAT TAAAAGGATT AAAGTAATAT 135720  
AAGGCAGTAT TTATTAAGTG TTGAGTGAGC ACTACAGAAC CCAAGTGCTG AGGGAGTTTC 135780  
ATGCAGGAAG AGATCAAGAG TAACACAGAG AAGAAGAATA GATCAATTTA GCGCATTCTAT 135840  
TTAAAAATTC ACCTTTTGCA TAAGGGGATG TGTCTTTTGT GGGGAGGAGG GGAGTTCCGA 135900  
TTGGCAGTTT GTTCTCAGGG AGCTTGAAGA AGAGATCTTG GAGAGGAGAC GCAGAGAAAA 135960  
CAAATGAAGA AAATGTCAAA ATGGAAGGGG TTGGCCCGGC TATGCATACC TTAGTTAGCT 136020  
TAGGTAGAGT CTAACTTTT ACAAGTGGTT TCAATAGGTG TGTTTGGTCT GGGTTCTTTG 136080  
GGAGGTATCA TAGGAGAAATG AAGGCAGGGA GGACGCTTCC AGCACCAAAA TTCAAAGGGA 136140  
AATGTATTTT ACATGCATAG CATTGTTTTA CTCTCTTTCC ATTTGGAGCA TATCTTAAAA 136200  
ATTCCATTTG GAGCATATCT TAAAAACCC ATTTCTCTGA CAATGGTTCT AAAAGGGGGA 136260  
AACATCCTTT GCAACAGAAT CATTCAATTCT CTCATTCTATC AACCACTGAT TGTGTACTAA 136320  
GTGTCAGACC TGATCTCCAT CCTGCCTGGT ATGGCACTAG CTTCTGTCTT GAGACAAGCA 136380  
TTGTGATAAA CCATGACCAA AAAAAGGGCA GTTTTATAAA CACAAGTCTG CCAGGCTTTC 136440  
AGCAATTCTA AATTTCTTTT TGCAAGTCAG GCTGGAGTTA ATGGCTCTTT CCTGCAGCGG 136500  
CGGAGATGAC AGGGCTCTCC CACAGTGCTG AGCAGGCAGT TTGAAAGCCC CACTTCCTGT 136560  
CTCTGCATGG GCGAGTGTCC ACTGGAAGCC ACTGAGAGGA AGGAGGGAAA CCTCAGAAAC 136620  
CGGCCCCCTG CTGGCTGCTT CACCCTAGAA AGCCCAGGCA GAGGAGGGAA AGGTGAAGTG 136680  
CTGAAAAAGA ATAAAAAAGG GGGAACATGA AAAAGAGCAA GAGCAGGAAG GAGGCAGGGA 136740  
CGGGAAAGGA GGGGAAGCAC GGAAACAGCC AATGTCAAGG AGAAGAAAAG ATGGCTGGTG 136800  
GAAAGGAGCT TCCAGGAATT GGGACACAGC CCTGTCTTAT TGCAAAAGAT GGAAACCCTG 136860  
AAGGAGAACA GGAAGGAAAA AGAAAACAAG TCCGTCTGAG CTGGCAGGGT CCACTTTCTC 136920  
ATTCTACAGA TGAGGAAACA GAGGCACAGA GAGGAAGTGG CTTGCCCAAG GGGGCAGATT 136980  
CTTGAAAGGA TCATCTGCAC TCTCTCTCCC TTAATGCATT CTTACCTCTT CTTTACTCGT 137040  
GAGTCAGTCC TGAAGGACAA GCTGCCTGAA GTCCACACA GATGGGCCTG GGGCAAGCAT 137100

FIG. 6.52

CAAACATCCT GGGGGCCCTG GGTGAGGTTT GCTTTTAAAT TCCAGGTCAG GGAAAGGAAG 137160  
GTCTTTAAGT TGCTGCTCT AAGCTTAGTA ATCCCCCTCA GAGTTATGGG TGCGGTGTCT 137220  
GGGGTAGCCG TTGCGTCTCT GGGCAAATAC CCTGGAGAAT GCAGTGTGG TTGTCTGAGC 137280  
TGGGGACAGA GTGACAGCAT AGTTGCATGC AGAGCTGGAG GCTCCTGCAG CTGTACAGGT 137340  
AAGGTGCTGA AATTCTCCAC CAACCCTTCC TCTTTGCCCC CAGCACCACG AAGATAACCC 137400  
TCTTTGAATA TGTGGAAGTC TGTTCTCCAA ACTTTCTAAC ATTCTCATGT CAGTCTTAAT 137460  
AGATTGAGCT CAGTTACTGC CTCCTCCAGG AAGTCCTCCT TGTCTGCAA TCGGCTGCCC 137520  
ACCATGCCGG CTCACTCATA GTTTAACTC TGATCTTTC TAATATGCCT TAGCCCACTC 137580  
TGTCAGGATT CCAGTCAGCT TCCTTCTCCT AGACTAGGAG TTGCCTCAGG CCAGGAGGAC 137640  
CAGCCTTGTT CATATCTGTA CCCTGCAAAC CTGTCAATGC CCAAACCTGC TCAGTGCTTT 137700  
GGAGTATGGA ACCAGCCGTC AATGCAGGAA TGTTACACTC TAAGAGTTCC CAAAGGTAGA 137760  
GAGATGAGGG ATTGGTGCTG GAAGTGGGAG GTTATTCTAA GGATGGGTAT GGCAGGAAAC 137820  
ACAATTATAG TTCAGGGAGT GGAGTGTCCA GGAGTGGGAG GAGAGGAACT GGGAGAAAGA 137880  
GCAGAGAGTG AAAGTGAGAG CGGGCACAAA GAAAGGGAAA AAGAGTCAGG GATCAACCAA 137940  
AGTGCATGCT TCCTTTTCAG CCCTGCCAGG ATGTGCAGGG CGGCTGCTGT GGACGCGTCA 138000  
AGGCTCAGCC TCAAACATGT CTTCTTCCTT GACTTTTGTC TATCATTCTA AAGCTAGGTC 138060  
ATTTAAAAAG TTCTTTTGTT TTCTTTCCAC CGATACTCTG ATTTCTGACA TCGCCAAAA 138120  
AGAGGTCAAG ACCCTGGCAT ACCGCCCTAC TAAGATTAAA ATAAATATTA TCCATTGAAA 138180  
CTGTTATTTT TTCCTTAACT GTTATTTGTA GAGTTAAAGA TTCCCATGAT CGCGCTGGCT 138240  
CTAACATCAT TTTTGGCTCT TTTGAGATCA AATTTGCAAT TTGATGCAA AATAGCTGTG 138300  
ACGCATATGT GTCTGTATGT GTGTGGTAG GAGATTTTT ATCATTACAT CTTCTTTTGC 138360  
CCTGCCTTTC TGCCTTTCTG TCCTTTTAAAT TTGCGGGCTT TTGGCAACCA CAGCACGGGT 138420  
CTGGTTTCT AGGAGTTTCT TTTGTAGGAT CAAACCGCTA GTTGGCTCTT GGCCCTGTGA 138480  
TAGGGCCCTG GGCTAACTTA TTGGGAAAAT GTTGCTGTAA CCCCTGCCCA GAGGTGCCTG 138540  
TGACATGGGC CGCCATCTTC TCCTCTCCC TTGGCTCAG CCCACCTAG AAACCTGAAC 138600  
AAACATTTTC CTTGACATT CATAAAGTG CAGTGGCTCC TCATTAGCA AAATACATCC 138660  
CAGGGAAGTT CAAAAGTGAA AAAAGGCCGT AACTTCTTCT TCTTCTCAGG GACCTACAGA 138720  
AAATATGTGG CACCTCGGCA GCCTGGCCTG CAGCACTCCC CTCCCCATCG GTGAGTCCTG 138780  
CTACAGTGGG TCCAGGTGTC TGGACGCCCC GCACGCACGG CTCTCTGCAG ACCTCTGGAC 138840  
AGTACCATGG GAGCCGCACA GTCCCTGCCT GTTCTGTCCG GCAGTTCTTG TTTCCAGCA 138900  
CCCTGTCTCA GGTGAGAGGT TCCCTCTTCT GCTGGGCTTC TCCTCCCTGC TGTGAACCCC 138960  
AAATATCTGA GGCAGGTCAA TTAGGAACC TTATTTTGCC AAAGTTGAGG ATGTACCCAT 139020  
GACACGGCCT CAGGAGGTCC TGAAGACAAG TGCCCGAGGT GATCGCGGCA CAGCTTGCTT 139080  
TTATACATTT ATACAGACAT CAGTCAATAT ATGTAAGATA AACATTGGTT CGGTCCCGAA 139140  
AGGCCGGACA ACTCCAAGTG GAGAGGGGGC TTCCAGTTCA CAGGTAGATA AGAGACAAAA 139200  
TGTTGCATTC TTTGAGTTT CTGATTAGCT TTTCCAAAGG AGGCAATCAG ATATGCATTT 139260  
ATCTCAGTGA GCAGAGGGGT GACTTGGAAT GGAATGGAAG GCAGTTCTCA GTTTAAATTT 139320  
TCCCTTTAGC TTAGTGATTT TGGGGTCCCA AGATTTATTT TCCATTCACT CTGCAGACAG 139380  
GGGCTTCTGT GCATCCAGGG AGCCCCTCCT CACAGAAGGA AGCAGGCCAT TAATGAGACC 139440  
CAATCCAGCT TCAACCACCT GGTAACAATT AGGACATCAC TTCTCTGAGC AAGAGCTCCT 139500  
GCCTGTCCAT GAGTTATCAA GACATTCAA TTGTTCTCC ACATCTTTGA CATGAAGACT 139560  
TGAGGGGGTC AGATTTTCCA GGGGGCTTGA TGGCATGTTT TCTTCACTGT TCCCTGCCCT 139620  
GGTCATCCAA GTGACCCTTG GCAGGGAAGA GGCCCCGAGT TGCAGAATCT CTGTTCTCAC 139680  
AAGCCATTGC CAACCCGGAG AGTGGCTTTG CCACTATTCC TAGCATGTTG TTGGCTATTT 139740

FIG. 6.53

CAGGAATGGG AGTATTTGAC TTTTCCCTTT GCAGTGATTG CTGCAAGGAG AGGAATTGAG 139800  
AGACTCAAGT CCCTGAGATA AATATTTATC AACTATTACT GAAAGGGAGT ATGTCAAAGA 139860  
AAAAATGTGG AGAAACTTCA GCTTGAACAC ATAGTTTAAA TCCAGCTTGG GTGTACTCCA 139920  
GTGGGCATGG ATGTATTACT GTTTTGCACT GCATTCTTCT ATGATCAATA CACAGAAGCA 139980  
AACAGGCCAC GTGGGTAAAC AGTAATTTTC ATTTACCAGG GTGAATATGG AAGTCCTCTT 140040  
GTTTCCATGT CATGATGAAG GAAAGCAAGG ACCATCTTTT GCCAAGGAAC AGTGGCTGTG 140100  
GGGGAAGTGA GGAGATGGAA GGACAAGGCA GTCAAAAGCT TTGGAACAAC TCTTTTTTTG 140160  
AGATGGAGTT TTGCTCTTGT TGTCCAGGCT GGAGTGCAAT GGCACGACCT CGGCTCACCA 140220  
CAACCGCTGC CTCCCAGGTT CAAGTGATTG TCCTGCCTCA GCCTCCCAGG TAGCTGGGAT 140280  
TGCAGGTATG CTCCACCATG CCTGGCTAAT TTTGTATTTT TAATAGAGAC GGGATTTCTC 140340  
CACGTTGGTC AGCTGGTCTT GAACTCCCGA CCTCAGGTGA TCCACCTGCC TCGGCCTCCC 140400  
AAAGTGCTGG GATTACAGGC ATGAGCCACC ATACCCGGCC CTTTTTTGGA ATAATTTTAT 140460  
AGGTTTTCAA ACTATTACAC TTACCTTTTT ATATAAGAGA CAGGACATAG TCACTGAACA 140520  
ATCACTCCAG ATTTTAAGTA AGTCCAGGAT GGGATGACAA TGGAACAACC ATGAAATGAA 140580  
AGGAAGAATG TGTCACCTGT ATGTCCACAC GTCTCCAAAT CTCTCACCTC TGTCAGCTGC 140640  
AAACAGAGCC TGAAATAAAT GTTTCCTCTG TGCACAGCCT CCACAACCTC CTCCCTCCAC 140700  
GTTTCTCACT CACTCCTCTC CAGCACTTCT CTCCGGGTTT TGCTTACAAA CTTGAAACCG 140760  
GCTATGCAAA AATTATAACT GTGGAAATTA TGACAGTGAA AGAGATCAGA CCTAACCGAC 140820  
TCCATCTTGC TTCTAACCTT TAAGCTGTCC TTGTTCACTT TTGGGCTGAA CTAACCTTGG 140880  
GAAGGAATTC AGTTCATGGT AGAACTCTGA AACAAAATTG ATAATAGCCC TTTCCTGAAA 140940  
AGACCCCTT CTGCTCTGGG GACAAGTCTG CCATTGTAGG ACTAACAAT TAACATAAG 141000  
ATTAGAAAT AAGGTTTAGG GTTCATGCAG CCTCCAGTTC CAAGAGTCTA AACCTCCCCA 141060  
AATTGCTCCT GGGGATAACA TCACTGTTGT AAAAGCTAAG ACCAGTGCTT GAGATATTTT 141120  
GTAGACCTG CTCTGGATGG ATCAGCTGAC ACCATCCAGA CTGGTAATTT GGCTCAACCA 141180  
GCTCTGCCAT CCCACCCAGG AACAGAAAAA TACTCACTTC ATCACCCCAT GAGTCCATCT 141240  
CTAACCTGAC CAATCAGCAC TCCCTACTTC CCAGGCCCTT ACTCGCCAAA TCTGCCTTTG 141300  
GAGGCAGATA ACAACTTATC TTTAAAACT CTGATCCCTG AATGCTCAGG AGACTGATTT 141360  
GAGTAATAAT AAAACTCCGG CTCTGCATGA ATTACTCCTT TTCCATTGCA ATTCTCTTGT 141420  
CTTGATAAAT TGGTTCTGTC TAGGCAGCCA GCAAGGCGAA CCCTTTGGGC GGTTACAAAC 141480  
TCATCCTCTG TGGAAGAGTA GGAGTTCATG GAGAAATTGG TTGCAAATTA CAAAATTTTA 141540  
TTGTAAGGTC AACTTGTCCT AGTGTCCTG TGTGCAGCGA AGGGCCCCTG CATGGTTTAG 141600  
TGATTGCAAG TTGAGCCTCT AGGGTCAGGT TGTCTAGGTT TCCATCCCAG CTCATTCACT 141660  
TATTATCTGT GTGTTCTTGA GCAAGCTCCT TAATCAATTG AGGCTTTGTC CTCTGTTTG 141720  
TATAATGATG AGAATAATAA CCTCCACAAT AACCTCATCA TAAGGTTGTT GTGAAGATGG 141780  
ATCAGATAAT ATATATGTAG AGTGCTTATA ACAGTGCTG GCACATAAAA AATGCTCAAA 141840  
AATCTTAAGT GTTATTAATA ATAACTGAC ATATATTTCT TGAGCAGGGT GGTGGTAAAT 141900  
GGGTGTTCTT TTTATTAAGC TTTAAAGTGT GCATAGATCA TATTAATTCT TTTTATGCAT 141960  
ATGATATATT GCACATGCAT GAAAATACAT GCATTAAAAA TAAATGAGCA TTTATGAGAT 142020  
TTAGTTTAGC AGTCACATGT CCCAGGATTA CAAGCCAGCA ATAATGGGTT GGAAAAACAT 142080  
CCAACCCATT CCAACCATTG GAAAAATTTC CAACCCATCA CTGGACCCAT GTGCCAAACA 142140  
ATGGAACCGC CCACAGGTTT TCATTCTTGG TTAATAAAT ATGATTATTA CGGGAATAAT 142200  
ACTGATTCCC TAAGAATTAA TATCTGAGCA AGTTTCTTTT TTTTCTGTC TTCTTGGAAG 142260  
ATCAGCAGGT TCTAGATTCA ATGGAGTCAC TAGGATTGAG CCACCAGTAT ACGCCAGTCC 142320  
TCTCCAGAAC GGCCACCTGG TGGTGGGCAC TAAGGCAGTC TCAGATGAGG ACTGATTGAC 142380

FIG. 6.54



TTTTGTGTGA ACTCAAACCTG CCAAAGTCCC TCCCTCACCT TGCAAACCTC AAAGCACAAAC 142440  
TTTCAAAGCA CTACTTTCTT TCTTGGCTCT CAATTCTCTG CCTAGAAAAA GGGAGGTGTT 142500  
GGCAAGGATG TTTGTTTAGT TCTGGGCATC AGTCAATGGT ACCCAGATCT TGCTGAACAG 142560  
AAAAGACACA GATTTGTTTC TCTGAGGCAG TTGGTAGTGC TTATTGCTTA TTGCTCTCAG 142620  
GGGCTTCTGC AGCAGTAGAA GGGCCCTCTT CCCCTGCCAT GCCACACTGA GAGGAGCATC 142680  
CTTGGAGTCA TGGTTGGAAT CTGTTTTTGT TATGCTAGTC CTCTCCGCA TGCTAGCTGT 142740  
TGCATTGCAG GGATATGTGT ACCTGTTTAT CTCTCCACT AGGCTCTAAG AAGCCAGGTT 142800  
TCTTAAAGGA AGGAAGCTGA TCTTGTTTAT CTGGAAGTCC TCACAGTGAC ATTGCTCAGT 142860  
CAATGTTGAG TGTATGAATG AATAAACGGG AACCATCACG AAAAAGCCGA AAATACAGTG 142920  
GAAAGACTGG ATCATAAAAT CTCTAAGCA AATTTTTTTT CCTCTTACAC TCCATTTCCA 142980  
AATAGATAAA GTATTTTTTA AAATCCTATC AGAATATTCT AACACACTGA GTTGACAGAA 143040  
TAGAGATTTT TAAATGCAGT GTCATTTGGC CAGCCATTTG TGAGAATTTA TAAATGTTTC 143100  
AGTAGGTTGA AAACACTATA AAAGCAAGGA CTATGTTTAT ACCCAACAGC TGGCACTTAG 143160  
TATGAATGCT AAATGAAACA TTCTCTTCTC TTTCAAGAGT CAGTCCAACC AGTGACCCTG 143220  
ACAAGAAGGA AGGCACATTT AACTCAATTT AATGAACTCT TATAGAGCAT CTCCTTCTCC 143280  
AAGTGCTTTG CTAAGGATGG GGTA AAAACA TGAATAAGTC TTGGATTCTG TCCTTCAGGA 143340  
ATTTTCAGTC TTTGGAGGCA GATACATTTG CACCCAACTA TTATCCTAGG CAGAGTGTGA 143400  
TAAGTACGAT AATAGCAGTA AAAGCTCTAA GTTAGGCAGG AGAGGAGGAG CTCGTTAAAG 143460  
CTTATGGGGC CTGGGAGGCT TTCGGCGGAG TAACTCCAG GGGGACAGCT AGGCATCTGG 143520  
CTGCTGGAAT TGGGAGGAGG ATCATTTTAA GTGGCTACAA CTCTGGGTGC ACAGGACTAG 143580  
AGGGTGAGGG CCAAGATGGG AAATTGTGGC AGCCATCTTC CACACTGGGC GCCCCCGGAC 143640  
CCTTGCTTCC TGGTATTCAT ATTATTGTGT AGTGTCCCCC AACATTGTAT CAGGGTTGGC 143700  
CTGTGTGACC AATTGCATAT GGTGGGAATG ATGGTGTGTG ACTTCTAAGA CCAGTTCATA 143760  
GAAGATGTGG CCAATTCCCT TACTGTCTTT TTTTTTGGCA GGGGAGTGCC GAGTTTCACC 143820  
CTTGTGCCCC AGGCTGGAGT GCAATGGTGC GATCTCTGCT CACTGCAACC TCTGCCTCCC 143880  
AGGTTCAGT GATTCTCCTG CCTCAGCCTC CCACTAGCT GTGATTACAG GTATGCGCCA 143940  
CCATGCCTGG CTAATTTTGT ATTTTATAGTA GAGACGGGGT GAGATCAATG AGGCAGTCAA 144000  
TTGGCCAGCC TGGTTTTGAA CTCCTGACCT CAGGTGATCC ACCCGCCTCG GCCTCCCCAA 144060  
GTGCTGGGAT TACAGGCATG CGCCAACCGC GCCTGGCCCT TACTGTCCTT TGGATCAGCT 144120  
GCTCTGGGGC TAGGTCAATC CTTTATGTGA CTGCAGCCCC AGCCAACATC TGGACTGAAA 144180  
CCCATGAGAC ACCCTGAGCC AAAAAAGCCC AGCTAAGACT TCCTGCATTT CTGACCCACA 144240  
GAAACTGAGA AAAGAAATGT TTTGTTGTTG CTTTAAGCCA CTGACTTCTG GGGTCATTTG 144300  
TTTTGCAGAA ATAGATAGCA GATACAGAAA AGCAGGCTGG TGGAACAGTG TGGGAAACAC 144360  
CTTGATTTTC AGGGAGTTGC ACTTTGTTTA TGTGCAATGG TGCAGTGTTC TTAGAAAGAC 144420  
ACAAAGATGA TAATACTGGT GATGGGCATA ATACGGGTTG TCAAGAGGAG TGAAGGAGGC 144480  
GGGGATAATT TAAGAGGCCA CAGCAGTAGT GTGGCAAGAG GTAATGAGGG AATTGAACTT 144540  
GGTGGGAATG GGTGAGATCA ACGAGGCAGT CAATATGGGC AGTGAGTGTG AAGGAGCTGC 144600  
GAAGGATGAT TCTTTGGTTT TGAGCTTAGG AACATGAGAG AACCAAGATC TCATTTATCC 144660  
AAAGAGGAAA CACAGAAGTG AGCCCCTGTT TGGGGGCAGG GCTGGGTAGG AGGAAAAGAG 144720  
TGGAGACGTC TATCTCCCCA GGAAGAGAGC CCCCTGCTTC CAGATCCAG TGGATGGCAG 144780  
GGCACTCGGC TCATTCACAG ACTGGGCTCG TTGAGAAACC TTTCCCTGGA GGGCAGGGCT 144840  
GCTCTGTTTC ACAGCCCATC TCCCTCATGG CCAAGTGTTT CTCGAGTGAC AGTCTCTGCC 144900  
ATCAATATTT TTAGCATGTG GTCTTTCAGA GACTAAAGAG TGGCATCCAT CTCCTGAAAC 144960  
TCCTTCCCCA GCTGACAGCT GGTGACCCGT GGAGGAGGGA GCTTCAGGGA GCCTGATGGG 145020

FIG. 6.55

CGAGAGTCTG TTCCAATGCC AATCCATTGG AAGAGATGAA GTCAGACCCG AGTTTGATAG 145080  
AAAGCCTACT TCCTCCCTTG TATCCAGCTG TGGAGACCTA CCAACATCAA TGCAAACCCAG 145140  
AAGCTAACAC CCAGTTCATA TATCCCAAGT GGAAGGAAGC TTCTCGTGGA ATTGTCTTAC 145200  
ATGACAGTAA CATAAATCCT GAAGGTAATA CTTGGCCAGG TAATGTTAGA AAAGAACCCG 145260  
AACATAGGCA TTGCTATTAT AGATCCTAGG ATAGGCCTGA GCAAAAACCTG TCTGGGATTC 145320  
ATAACATGCT TCGTTGCAAT CTGATAGAGG GAGTGAGATC CACTCCAAAT GGAGTCTGAT 145380  
TTGGGGCAAA GCAAAGAGTA TGGAAGGAAA CTTGAGAAAG GGGGACAGCT TCTCAAATGG 145440  
AGTCTGGCCA CAGCTGGGGC TGGAAGAGAG ACATGACTGC GCTTGCAGAG TGGTGAGAAT 145500  
TTGCTGCTAG AATTTTAAAG TTGTGTGTTT TCATTTTAT GATAATGTAA ACTGAGATAA 145560  
GCATATTCTC TGCTATCCCA ATGAGCCCCT CCTCTAGGAG GACTACCTTG CCACCTTATC 145620  
CATAAATGTG TTTATAAATT ATTTTGATGC CAGCTGGTAT TTTTAAAAA GTGGTTTTGG 145680  
ACTCACAAAA AAAACCATGA TGGATTTAAT ACATAACAAA GCATTTGTGT CAAGTGAAGG 145740  
CCAAGTAACA TCTTAGCGTC CTGTGTGAGC GAAGGTGTCTG TGGCAGTTCA AACAAGAATG 145800  
CCGATGAAGC TGCCCAGGAT GGCCAAGGCC ACCTTGGTGT GTTTGAGGGG AATTAGAGTT 145860  
TAGAAAAAAA AAAAAAGGCA CCTGACACTC TGAACATG TGGTTACCTG GAATTTTGGG 145920  
GTTTTGAAGC TTTGCATTTA ATTTGCAGCT TATGGCCTGA AGGAAAAGAC AGGTGAAATG 145980  
CATATCCTGG GATGAGTCAC CTGGAGGAGA GGGCTGGGAA GGGGCTGAGC TGCACATGCT 146040  
CAGATCTTCT CCCAGGCTTA TCGACCCAGT GAGTCAAGTC TTCTTCCAAC GGGATAGAGT 146100  
GTGAGAGAGA GCAGGGAACA GAAGCCAGAG TCTCTGTAA ATTTCTCGGT ACATTTCTGT 146160  
TAGAGAATGG AAGTTTCTCT ATCGTAGGAG ACCTTGAGAG CCTGGGATAG AAATTACCCC 146220  
TTTGTGATGT ATTTTCTCC CAGAAATAGC ATGGCCACTG TCACTGCTAA GCTGGAGTAT 146280  
CATGAGCACA ATTTCTCTCA CTTTCTATAC CCATGCCTTT CTAGGAGATT GGTGGCTCCA 146340  
TCAAAAAGGA GTTAAAAAGA AGCAGCACTA TTTTGTGGAA TACAATCATC ACCATTATCA 146400  
CCATCAGCAC CACCAACCAG CACCACCATT ATCAAAAGCA TTCACCTGGT GTCTGCCTTA 146460  
CAAAGTCAA ACTGCAGTAG GTATTTGTAA TAGAATGTTT CCTTTCCCCC TTGGGATCTG 146520  
CAGAAAAGCT GGAGAATGTT TTGGTATCAA CACACTAGGT TGCATTGCTA ATCATGTGAT 146580  
GGCCCCATGA CAGTCTCTGT TGGCTGGTGT AGTTCAGGTG GACGACTGCA GGATTTTGTT 146640  
CTTGAGCCT CAGTTCTGAC TGGGCTTGGG GTGTAAAAGG TTTGGGAGCC AGATGACAAG 146700  
AGTATTTGAT GGGTAGAATA ATGGGTTTAT CCAAAAGATC ACCAGAATGG TTATTAAATA 146760  
GTACAAAGGA GGAATTTACT GGTAATACCA GTTTGCAAAC AGAGAAGAGA GTCTCCAATG 146820  
TGGACTGAAA GTGCTCTCTC TTTGAAGAGG GGAAGGACAG ATTGGGTTTT ATGCCTCACA 146880  
GGACTGGTAC CACATATATT CAGCAGGTTT TTGGGGAAAA TCTATACATA TTTATAAGGT 146940  
GAGCTGATGC CTGCATAATA GATAAACATA TATGTAACAT ACTTTTCATA TTCATTTTGG 147000  
GACTGGGTTT TGGCACTAAA ATTTGTGGAA TTTGGCTCTT TATGTTAAAA GGTGAACTAG 147060  
AGGACACAAA GACGGTTTGT GTGCACCCTC TATAAACTGG CTGAACTGG CTTAAGGTCT 147120  
GCAACTGCTT ATCCAAAAAG AATGTTTGTA AGGCCAGGCC TCTGTCCAGT CAGAGTTGTA 147180  
GTGGTCCAGG TTGTAAATCA AAGTTTATAG CTCTTTTGT TAGAGAGTTC AGCTGTAGGA 147240  
ATTTAGAAAT TTGCCATGCC TGCCAGGCCC TGAACCTTTG ACCCATAGGT AACTTTATTT 147300  
CCTTAACCTT AGGGTCAGTC TTAGTTGATA TGGGGCATCT ATTCTGGTAT CTCAGATCCT 147360  
ATGGTCAAGA GAAAAGATCC TCCACAAGAG GGTCTATGT GGCTGCAAAA ACTGCTCTGA 147420  
GCTAAATCCA CTCAAAATCA CTGCAGGATG TCACTACTAG AAAATAGGGC AGGGATAGGG 147480  
ATCCCTTCC CATGCTGCCA GAAAATGCCT GATAGCTTAC CTCCCCCGGC CCTTGAGGCT 147540  
CCCTTGGAAT AGGCACATGC AATCCCATCT CCACCCAATA GAGCTTGTC TAGAGCTCAG 147600  
TTTTTTCCCA TAGTTTTCCC ACCCACTTGC ACCAGAAAAT CTAATAAAGT CATGTGATTA 147660

FIG. 6.56

ATACAATTCA TTTTATCACG CTTCTGAAGA TTTAAGAGAG AGCGGTCACA TTGGATTCCA 147720  
CAGTACCGAC CTTCTGACGA TTCTTCATTT CACCTTTATC TATTTTTATT TTTATTTTAT 147780  
TTTTTTTTCG AGACGGGGTC TCACTCTGTC ACCCAGGCTG GAGTGCAGTG GGGCAATTAC 147840  
GGCTCACTGC AACCTCTGCC TTCTGTGCTC AAGCAATCCT CCCACCTCAG CCTCCCAAGT 147900  
AGCTGGGATC ATAGGTGCAC ATCACCAAGC CTGGCTAATT TTTTGTATTT TTGGTAGAGA 147960  
TGGGGTTTCA CCATGTTGCC CAGGCTGGTC TTGAACCTTCT GAGCTCAAGT GATCTGCCCA 148020  
CCATAGCCTC CCAAAGTGCT GGGATTACTC ACGTGAGCCA CCTCGCCTGG TCCCTTTCAC 148080  
CTTTATTATC TTGCTTTTA ACTCTAGTGC TTCCTCCCTG AATCAGTTAA GGATTGCATT 148140  
TGGCTGCATT AACAGAAACC TGA CTGCAGA AGCTTAACCA AATAGGGTAG TTTTAAAGA 148200  
GAGATTGCTT ACATCACGCA AATTGCACAA ATTTAAGTG CATAGTTCAA TGAGTTTGA 148260  
CAAATGTAGA ATAACATAGC TATATAAAAC CATTCCATCA AAAAAATTTT ATCACCATAG 148320  
GAAATTGTGT CCTGTCCCTT TCTGTCAAT CCAACTCCT CCCACAAGG CAACCTTCAT 148380  
TCTCATTTCT CTCACCATAG CTTAGTTTTA CATGTTTCTA TAATACAGCA TCATATAAAT 148440  
GGAATAATAC AGAATGCAAT CTTTTGTATG AAGCTTCCTT TGGCTCAATG TAATGTTTAT 148500  
GAGATTCATC CATGTTATTG AATGTATCAG TAGTGTTC ATTTATATTT CCTAGTGTTT 148560  
TATTGAATAA ATATACTACA ATTTGTTTAT CCACTTATTT GTTGATGAAC ATTTGGACCG 148620  
TTGGCAATTT TTGCCTATTA TGCATAAAGC TGTTAAAAA CATTCTTGTA CAAGTCTTTC 148680  
ATTTCATATG TTTTCTTTT TCTGAGGTAA ATA ACTACA GTAGAATTGT TGGGTAATAA 148740  
ATAGGCATCC ATCTAATATT ATAAGCAACT GCACAACAGT TTTTCAACGT GGCTGTACTA 148800  
TTTCACTCTC CCAATAGCAA CGTATGTGTT TTCCAGCTAC TCCACATGCT CACTGGCATT 148860  
TCCTGTTGCC AGTTTAAACA TTTCAGCCAT TCCAGTGGAT ATGAAATCTC TCTGGCTATA 148920  
ATAATTGTAT TTCTCTGATG ACTAATTATG TCAAGCCCCT TTCAAATGC TTATCAGCCA 148980  
CTTCTATACT GTCCTCTGTG ACATGTCCGT TCAATCTTTT TGCTCATTCT TAAAAACAT 149040  
TGGGTGTTT GTCTTTTCT TAGTTGTCT TTTGCTTTT ATTTATAGGA GTACATATCT 149100  
TCGGAATACA AGTCCTTTGT CAGATAAATG TATTGTGAAT AATTTCTCC TAGTTGTGG 149160  
TTTGCTTTT CACATTCTTA ATATCTTTT ATGAGTGGAA ACTA ACTTC AAATTATGTT 149220  
CAGTAGATTA ACTTGTTTT GTTTGTTTT GTTTGTTTT TTGTTTTAA CACTGGGTCT 149280  
CACTTGTTGC CCAGGCTGGA GTGTAGTGGT GCCATCATGG CTCACTGCAA CCTCTGCCTC 149340  
CTGGACTCAA GGGATCCTCC TGCCTCAGCC TCCAAGTAG CTGGGACCAC AAGCACGCAC 149400  
CACTACACTT GGCTACTTTT TTATATTTT GGTAGACACA GGATTTCGCC ATGTTGCTCA 149460  
GGCTGGTCTG GAGCTCCTGA GCTCAAGCGA TTCACCCACC TCAGCCTACC AAAGTGCTGG 149520  
GATTACAGGC GTGAGCCACC ACGCCAGTC GAGTAGATCA AGTTTAAATT TTATGGCCAG 149580  
TAGAGATCTA TTTCAAGGCT CTCTATTTT TTCTGTTGCT CTATTTATCT ACCTTTATGC 149640  
CAATTTTCTT CTCTTTTGAT TCAGATAGGG TTATAATAAT AATTATTTT TCCAGGGATT 149700  
AGATGGACCA GGGCTGGTGA AGTTGTTCAA GGGAGTGATC AAGAGCCTGG CTCCTTTCAT 149760  
CCTTCTGTT CATCTCCTT GGCTCATGGA TTTGTTTTT CAAGTGGCAA GATGGCGCCT 149820  
CCACCTTGG TATCCTATT TAGTTCCTGG CAGAAAGAAA GGAACAGGCT AATGGCCCTG 149880  
ATGAGTCTAC CCCCTTTTAA CAGGAGAAAA TTTAAAAAAC AAAAACCATG AAACCCTTTC 149940  
CCAGAGGCAA CAACCAGAAT TCCATTTATC TTTCATTGAC CAGAACAGAC CACATGGTCA 150000  
CTGGTGGTGG CAATGGAGAC TGGGGAGATG AATATTTTAA AGGTGGCATA TTCCAGAAGA 150060  
ACACTGTGCA CTGATTGCAT TAATGAACCC ATTAATGTGC CAAGGGGAGG TTTACCTATG 150120  
AGCATGGGCA AATTAGAACC CACTCTTGA GCTGCAGGTG AGCCAATCCC ACCTAAACAG 150180  
TGTGGATGCT ACAAGATGGG GAAGTAAATT GATTCTATTC CATACCCTAA CCTCTCTCCA 150240  
AGATGTATTC TAAAAATAGA AGAGGGAAGA CAGAAGAAAA CATCCAGAAT ATATTTTAT 150300

FIG. 6.57

TGTCCTTTTAC TTCTTCAGTG CATTITAGAT CAGTGCTTCT CAATCTGGCA AGGGGCATGC 150360  
AGGAGGATGT GAGTTTTATC AGGAAAACTA CACAACCCCC CAACCACAAT GCTACCCCCA 150420  
CTCCTGTGGA CCTTCTTTAA GAGAGACTCA CTATTATAGA TGGAGTTGAT ACGATTTTAA 150480  
GAGAGGCCAT ATATTATTG CTTTCTGTCT TGAAAACTT GTGATTTTTC TGTATTGTGC 150540  
TACTGCCAAA GAGAATAGAA ACCTGACTGA GGTGTCAATG TTTATGTAAC TGATTTTCATG 150600  
TACTTTCTGT AGTTCTACCA TTTCTGATGG TTAATAATTT CTTGTGTGTG TGCAGTTGGG 150660  
GAGTGTGTCC TCCTCCTTCT GCTCTTATAC CACACATTAG CACATCAAAA TGCTCTAATC 150720  
TTTGTATGAT TATGTGGCAT GTGGTGATGC AGCCTCACAG TGGAAAACT TCTCTTGGGC 150780  
CATTGCAAAT GTAACATTTT TTTCAATCAG ATAGTGCCAT TAAGGATTTT ATTATGGCCG 150840  
TCACATCCTG TGACATCTCT AAACATGCAG CATTAGGGCC TAAGTGCAGC CCTGCAGGTA 150900  
GAGTTGCCAG GTTTAACAAA TAAAAATTAC ACGCTGGCCA GCGGGGGTGG CTCATGCCTG 150960  
TAATCCAGC ACTTTGGGAG GCTGAGGCAG GTGGATCATT TGAGGTCAGG AGTTCGAAAC 151020  
CAGCCTGGCC AACATGGTGA AACCCCATCT CTACTAAAAA TACAAAAATT AGCTGGGCAT 151080  
GGTGGCAAAT GCCTGTAATC CTAGCTACTT GCGAGGCTGA GGCAGGAGAA TCACTTGAGC 151140  
CCTGGAGGCG GGGGTTGCAG TGAGCAGAGA TCACACCATT GCACTCCAGC CTGGGTGGCA 151200  
GAGCGAGATT CTGTCTAAAA AACAACACCG TATTGGGGCG ATGCTGATAC TAAAAATTA 151260  
TTCATTGTTT GTCTGAAATT AAAATTTAAA TTGGGGGGCC TGTATTTTAC TGGGCAACCC 151320  
ATTTGCAATA TCAGCAACAA TCTCTTATTC AGACCACTGA TTAAGTGTGC AAAATTTGAA 151380  
TCTCTGAACA GTACCTATGT CCTTGATATC TTAATTAAT GAGTGTCTTA GACACTCAAA 151440  
GCAGGAGGAA GCATTATGGC AGATGTTTGA GCCCCAGAGA TGCCCATGAG CACAGCATAG 151500  
AGCTCAGAGC CTTCTTTATT ATTTGCTTCA CGACAGAGCA AAGGACTGCA GCAGGTTGAC 151560  
TGATATAAAA GTTTTACCAT GTCTCACAGC AGGCCTTTGC TCAAGTTTCC AGTAAGGATA 151620  
TTGTATCATT TCTTGCCTGC AGTACTTGTA AATCCACTTA CACTGCCTGC TGTGAGTCA 151680  
TTTGTTCGT CTTGAGTAGC ATGTCATCCT TGTTCTAGA AGATAGTGAG TTTAGAGACA 151740  
GTAGCCAAGC AACAGCAGAG CAGCCTCAAC CAAAACGATT TTCCATTTTG GTGGGATGAA 151800  
TTGAAACACA AGCATCTTCT ATCCAGGGGA GATTGGGGA TCATAAAGAA TCAATCTGAG 151860  
CTGGTACCAC CATATTGGCT GCTGCATTTT CTAGAGTTGC CGTAACTAGT CTCACAAGCT 151920  
GGGAGGCTTT ACACAACAGA CATGTATTGT CTCATAGTTC TGGATGCTAG AAATCTGGAA 151980  
TCAAGGCTCC AGGGGAGAAG CTGCTCCATG GTTTTCTCTT AGCTTCTGGT GTTGCCAGCA 152040  
ATCCCTGGTG TTCCTTGGCC CGCAGGCGGA TCACTCCCAT CTCTGCCTCC ATTGTCACAC 152100  
GGCATTTTCC CAGTGTGCCT GACTCTGTGT TTCTTCTCAT AAGAACATCG GTCATATTGG 152160  
ATTACAGGCC CGTGCTACTC CATTATGACC TCATCTTAAC TTAACAATT ACATCTGCAG 152220  
TGATCCTGTT TGCAATAAG GTCACATTCT GAGGTTCCAG GAATTAGAAC ATAGACATAT 152280  
CTTTTGGGAA CAAAATTCCA GTGATAACAG TTTCGGAGAC AGACTAGTCC TGGAGTTTGT 152340  
AAGGTGAGCC AGGACCAAGG TGCCAGGATT CTCATTTTGT AAGGTCCAGG AACAAAGTGA 152400  
TGTTAATAGA AAGAACATGT TTTTGTGTGT TATTTGTTT TTGAGACAGT CTCCTCCAT 152460  
CACCCAGGCT GGAATGCAGT GGTACAATCT CGGCTCACTG CCGCTGCCAT CTCCCAGGTT 152520  
CAAGCGATTG TCCTGCCTCA GCCTCCTAAG TAGCTGGAAT TACAGGTGTG TCCCACCATG 152580  
CCCAGCTAAT TTTTGTATAT TTGTGTGTGT GTGTGTGTGT ATATATATAC ACACACACAT 152640  
ACATACATAT ATATACATAC ATATATATAT ACACACACAC ACATATATAT ATATATAAAA 152700  
TATATATTTT TTTTAGTAGA GACTGGGTTT CACCATGTTG CCCAGGCTGG TCTCGAACTC 152760  
CTGCGCTCAA GTGATCCACC TGTCTTGGAC TCCCTAAGTG GTGGGACTAC AGGCACAAAC 152820  
CACCACGCCC AGACAGAAGG AATATGTTTC CTTCCAGTCT CACTTGACTG GCTGCTTCCC 152880  
TAGATAACAA CAGAGGATGT CTGTTGCAGT TCTCATTGCT GGGGAGTCTA AACTGGAATA 152940

FIG. 6.58

AAACACCCAC TATCTCCATC AGGCTTGCAC TAGAGCCCAG CTCTAGCTGG AGAGAAAGAA 153000  
GCTAACCCGC ACAGACACAG GACTGTAGGC AGGGAGCATC CGGGGGTATT TGGGTCCTGG 153060  
CTCTGATGTG CTAAGGCCA ACTTCTCTCT GGCCATGCTG GCGTGCATGA GCTCACTAAT 153120  
CTTCCTTTTT GCCTTCCATT TTCTCCAATC CTGACTTAGC AAAGGTTGGG CAAAAGAGAC 153180  
TCTGTGTGAG TCGAGCAAA GCCTGAGATG CTGGATTTTC CAAGATACGA GAAGGGGCTG 153240  
GGGGCTGGGT GAACTGGTGG TGGAGGAGGG AAGGATTAAT TTCCAAGGA GGGGAAGGGG 153300  
CCAGGACATC AGGCCCGGG GACTTTGAAG AGAGGGTCGT GGGTAGGAGG TAGATCAAGT 153360  
GGAGTGACAC AAAGGTCAGG AAAGAGGAAG TGTCCACACT GTCCTTCGAC AGACTTGAGT 153420  
CTATGGGACT TCCTCCCTGC ACGGTACAAG GAAATGAGTA AGTGAGATAA TGTTGTAAGT 153480  
TCTGGCCCTC TGACATTGCA CTGCCCGCAT GTCACAGTTG GAACTGTAC CTGCCCCCAT 153540  
CCTTGCTCTG GGTGTGTTG GTCTGGGGAG GGCTGGTGAA GCAAGAGGTA CTCAGAAAAA 153600  
GGACAGAAAT TGCTTCCTAT TATCTGGGCA TTTGGAGGTG AAGGGGTAC AGCTCTGGCA 153660  
AAGATGGGGT TGAAAGGGCC CGGACTCCAG GGAGGGGCAG CTCTGCATGG CCTGATTCCT 153720  
GCACCCACC TTTGCCCTT CACACCTCT CTCATCTCCC GTTTTTGAAG AGGAGGACCC 153780  
TGTCACATCT GGACAATTCT GCAAGAACTC TGTAAGACTG ACTTCACTGT GAACCAAGCT 153840  
CCAGAAGTCA ACAGAAACAA AAATGCTCAC ATTTAATCAC GATGCTCCCT GGCATACACA 153900  
GAAGACTCTG AAAACTTCTG AATTTGGGAA ATCCTTTGGC ACCTTGGGGC ACATTGGGAA 153960  
CATAAGCCAT CAGTGCTGGT GTGTGTGTGT GTGCGCGCAC ACGCGCATGT GTGTGCATCT 154020  
TCTACCATGC CTCCTACAAA TTTGACCTGG GCCCAGGGCC ATGTTCCGGT GTTTTTAAGA 154080  
ACCGAGGCTC CCAGAAGCAG TATTGGGCAG CTAGAGTGGC CCCAGGATCT ATATCAAAT 154140  
CTACCTGTTT CTGAACCAAA TTTCTTCTAG AATTTTATTC CATAAATCTG AATTATGGTG 154200  
TCAGACTCCT AGCATACT AAAGGAACTC TCTGCCTTGC ATTAATAAC AGGAGTTACC 154260  
CCTGGAGGTA ACTCCTAGCC CTGGCTCTTT AGAGAACAGA TGCCGAATAG GCATTAGGGG 154320  
ATGTGATGGA TGTGCTAACT TTCAAAAAA AAAAAAAA AAGGCCTGAG CTGAGTGCTC 154380  
AGAGATTCAC AAAAAGCTGA CAGCATCTCT CTGTTCCATT GGAAGCTGGG TGATCCTTTC 154440  
TACTCTTCC TGAGAAAGGC AGTTGGGCAG GAAAAAGCTG TATCTCTGTC CTCCTGAGA 154500  
GGGTTTCCA GTCTGAGGGT GAAGGATCAG GAGAGGGAGA CCTGACGGGT CGATGTGGGG 154560  
CATCATCCAC TTGAGTGAGA ACCAGAGGGA TCCCGTCATT GCCCAGGGCA GATGCTCCAT 154620  
TTTGGGGGGC ATCATTCAAT CTTTCCTGTT CTCCTGTCAT TCCTCTGGCT CCTGCCAGG 154680  
AGAGGTGGCC GCTGGCAAGA GAGCTTGGTG GAGGTGGGAG GTGGGAGGTG GGGGGTGGGG 154740  
GGTGGGGAGT TCTTGAGCCA GGACCTAGCG CATAGTCTCC AGCCTGCTGA TGGCTGTCTT 154800  
GGATGCTTCA AAGGGGAGAA GATCCTAGAT GTGGGAAACA TTGGTGGGCG TTCTGCTGGG 154860  
GCATCTGTAG CCTCTGAGAA GGCTACCACT CTCTCCTAAG CTTACGCCGT CACACCCTGG 154920  
GCACTTGTTG AATGACTTTA CTTAGCTTAC AGCCTCTGGT TCCTGTTGGG AAACCTAGGG 154980  
CTTGCCACAG TGTTCATTTT CCTTTGCGGG CAACTCCGTT CCTGGCACTT ATCATATTAC 155040  
CCACTGTACT CCCCCTTAG AGCTGTGTCA AGGTTCTGAG AATCTATCCC TTGGCTTGG 155100  
AGGGGTCATC TCTCTGGCCA GATCATTTC TGATAGGTCC TGAGGCACCA CAACACATAG 155160  
GAGGCTTGTC CTCTCTCTGG GGTTCACTGC CTTGCTCCTT CTCCAGGTCA ATATGTGACC 155220  
TTGGACCGGT TGCTTGAGTC CCCTGGTCAT TCAGAAACAA TTGGGTTTCC CTGGCTTTGG 155280  
AGCCTGGCAG CCTGGCTTTG AGAACCGGGC TTTAACTTGT CACATGACTA TGGCCAAGTT 155340  
CCTGGGGCTC TCCAAGCTTC ACTTCCTCTG TAAAAAGGGC AATAATATAA TACCTGTCTT 155400  
ATTGGGTTTT GTCCATGTTA GATGAGACAT TGGGTACAAA GCACTTGGTC CCGTGCCTGG 155460  
CACATTTACT GCACTTAATG TATGATAGTT TTCTTATTAT TCTAATAAAC AATATGGCTT 155520  
TGGGAGTATA GTTCTGCCAC ATTGCAGTGG CCAGAGTGAA GGTGGTGAGT GCCTTCTGGG 155580

FIG. 6.59

GCCCTGGGAG TCAAGGTTAT CCGCATGCCC TTTCTTGCTT GCTCCTCAGT GTGGCTGCCT 155640  
CTATGTCCAC ACCATGCAGA TGCAACAGGT AGTTTGAACC TCTGAGGCCC ACAGTGGGAT 155700  
GGGGAGGCAG GGACATCACT TATGGGGTGG GAAGTCACCC ATTCCCAGG AAATGGCCCC 155760  
AGCTGCCTTT TCCATGACTC CTCTTGA AAC CCTGTGGAGG CCACATTCGT GTTGGGGCGG 155820  
TCTTTCCCAT GAGGATATGT TCAGATGCCG AGGCATTTTG AAAAGCCCTC CATAGAGTTT 155880  
CCTTTCATAA CACATGATCA TCCCCTTGGG CTTCTGGTTT TTTTCTTTC AGGACCTTAT 155940  
TTTCAGGCAA GTGGCCTTTG ACCTCTAAGG CTGTCCTTTC CTAGCTACCG AATCCAGCAT 156000  
TCAAAGTGAT GGAAATATGT ATATATAGTA ATAGTAAAAT ATCAGCACTT AATGGCCTGA 156060  
TAAGAATGTC ACTGCAATGC TGAGTTTGA CCAACATTTG CCTGCTCCTG CCATTGAGCC 156120  
CGGGCTCCCC TCCAGAGCTG AGCTGCTGCA AGGGATCTGA GTAAGTAGGG CTGTGTCAGA 156180  
GTGGCGATGA CAGCCACCAC ATGCTAAGGA AGAGATCCCC AAGGACAAGG AGAATCCCAC 156240  
GTGGAGCTAC TTGCTTCTTT GTCAGTCTTG TTTTCTTAT TTCACAACCT TCTAAAACAC 156300  
AATCTCTCAA CCTCTATTGT TAGCTTGCAT TTTCAATCA TGAGCACAGC TTTACCTGGC 156360  
TCCATGCTTT GATTGACTCT ACCTGCCAAC ACTGCAACAA CAGGGAAAGG GACACCGGCC 156420  
TCATACCATT AGATGGTGTG TAGCCTGGGC ATGAGGATAA TTA AAACTC CCAAGGGGAT 156480  
TTTAACATGT AACACAGTTT GGAAACCATT GATGTAAGAT CTTCTTACTC AACATGTGCT 156540  
CCAAGGAGCT GTTGTATCAG CTTATCAGAA ATGTAGATCA GGCCGCACTT GGACCTGTAG 156600  
AATCAGAATC TGCATTTTAT CAGATCCGA CATTATTTGT ATGAACATTA GCTTTTGAGA 156660  
AGTGTTGCTT TAAGAGACTA AGGGGGTCAA TCTACCTCAC TTTGCAGCTC TGTGTTCCCT 156720  
AGTCATTGGC TAAAATATCA GCCCCCTGC AATGAGCCAT CCTCCCTTGT ATAGTCAGTG 156780  
ATGGCCTGTG AACCTTTAGC CAACTGGAAG TGGGAGGGGA CACAGTCCAC AAAACACTAT 156840  
CCTGACTTTT GACACCAACT ACAAGTCAAG GGGTCCCCA AACCACCCTG AGTTGTGATA 156900  
ATTCGCTGGG AGATCTGACA GAACTCACTG AAGGTTGTTA TACTCATGGT TGTGATCTCT 156960  
TATAGGGAGG GAATACAGAT TAAAATCAGC CAAAGGAAGA AGCACACAGC ACAGAGTCCA 157020  
GGACAGTGCC TGACATGGAG CCCCTACGGT CCTCTCCCGT GGAGTCACGG ACAGCGCCAC 157080  
TCTCCTGGCA TTGATGTGTG ACAACACACA GGGAGTGTTT CCCACCAGGG AAGCCTTGGT 157140  
GTCCAGGGTC TTTACTGTGG CTCTGTCACA TGAGCACAGC TGA CTGCCCCA TGCGGCCGAT 157200  
CTGTTCCCAG ACTCTCCACC GCTACACATC ACTCACAGTC CCTGCTCTAA ATCACACACC 157260  
ATGACCCAAT GTCCCCGGGC AAATGAAAAC ACCTCTAGCA GGCAGGACGT TCCAAAGCCT 157320  
TAGAGATCAC CTCTCAGAAG CTGAGGGCAG AAGCCAGACC TCTTTTGGG CAGGGTTAAA 157380  
TTCTTTATTA CTGTTTTTGA AAAA ACTCCC AAATTGAGTT TTTCTCTTC ACTTACAGCA 157440  
GCATAACAAC AATCATCAAT GCAGAAGACT TCTGCGAGCA AAGGTGTGGG GGAAAACCCC 157500  
AAGCAGTGGA CACTAGCTGG TGTCCTCCAA TTTGATTCTG ATGCTGTCTA CTGGGAGATA 157560  
GTGTCAGATC CTCAAGCCTA AACCCTCCTT CTCCCAGTCA GAGGGCTGGC CTTTGAACCT 157620  
TCTGACCAAT CCACTTCAAG TTGAGGTTCC AACCCTCCG CTCTTGGGT TTGGTTGATT 157680  
TGCTAGAGTG GCTCACAGAA CTCAGGGAAC CACAGCTACC AGTTTATTGC GAAGGACATT 157740  
TTAAAGGATA AAAGTAGGCA GATAAAGAGA TGCATAGGGC GAGGTGTGGA AAGGTCCCTA 157800  
GTGCAGGAGC TTCTGTCCAT GTGGAGCGGG GGTGCACCAC CCTCTCAGTA CATGAATGAG 157860  
TTCTCCTTCA CCTGCCTATC AGCCTCTACA TGTTCAAGTC CCCAACCAG TCCTCTTGGG 157920  
TTTTTATGGA AGCTTCAAGA CACCCACATT CTTTCCCCAG AGTATAGGGC AAGACCTTCT 157980  
CTGGGGAGGG TTTTAAGACC CACAGTCAGA AAGGTGGGGT GGGGTCAAGA TTAGAGTCCT 158040  
GCCTTGACGG GCAGGTGAAA GGGGTAGGGG GAGTAGGTGA GAAAAATTCT GTTTATTTT 158100  
TCTTTTTTTT TTTGAGACGG AGTTTCACTC TTGTTGCCCA GGGTGGAGTG CAATGGCACA 158160  
ATCTCAGCTC ACTGCAACCT CCGCCTCCCA GGTTAAGCG ATTCTCCTGC CTCAGCCTCC 158220

FIG. 6.60

CGAGTAGCTG GGATTACAGG CGTGTGCCAC CATGCCTGGC TAATTTTGTA TTTTAAATAG 158280  
AGACAGGGTT TCTCCATGTT GGTGAGGCTG GTCTCAAACCT CCTGACCTCA GGTGATCCAC 158340  
TTGCCTCAGC CTCCCAAAGT GCTGGGATCA CAGGTGTGAG CCACTGCATC TGGCCAAAAG 158400  
ATTCTGTTTT TGAGGCCTGC CTCTGAGGTC TAACACACTC AACATTATAA CAAGACTGTA 158460  
GTAAGGGCTA TGGGAGTTAT GAGCCAGGAA CTGTGGATGA AAACCTATCA CAGATATGCA 158520  
TATATATATA TATATATATA TATGCATATC TATAATAACT CCACAACCTAC AACTGCCTT 158580  
ATTGCTCAGT TCTTCTCTCC ATGTCTCTGA CCCACCCTTG CCCCCTTCCT CCATCCTTTT 158640  
CTCCATTGCA TACCCATCCA CTGTGCCCTT TGAATGCTC ACACCATGAA CTGCAAACCTC 158700  
TCGTGTGGCT TCAGCCTCTT CTCTGAAAGT TCCTCTCACC TATTACTTTC TCTGGAACCT 158760  
GCCATCCCTG CCACCTTCTC AAAAAAGGCC TTTTATTCTC TTCATTCCAC AAAGCTCAGT 158820  
GTCAAAACAT GGGGTTTACA CTGGAAGCTG AGGTACATC AGTAGCCGGG ATCAGGGTCG 158880  
CCCTAGCTGC CCAATGCAGC TCCCAGGCCT CCTGTAAAC CTTGACCTTT GAGGTCATGA 158940  
CAGCCCTCTC CTGCTATGCT CATAGCTGAC CACTGAACTC CTGGACACTC CCTCCCCAA 159000  
GTTACAGAG AATGTGGCA CATGCCTTAC AGTCTTCCCT TGATCCAAAC TACTGCCTTC 159060  
ATCTTGAGTG ACAGCAGCAT CTTTGGATG TCTTGGCCTG TCTAGCTTTA TTTTTTGTG 159120  
TTCTGCCATC AAGTTGCTAC TTCTGTTGCC ATCGTGCTG TCAGCGCAGT GCAGGCTGTG 159180  
GTGAAATCCC ACGAACTCAG GCATCACACT GACCGGGTCT GAGTCCTGTC TCAGTTGTCA 159240  
GCTAGTTGTG CAATGAAGGG AAAGGGACCT ACACCTTCCA AGCCTCAATT CACTCATCTA 159300  
TGGCATGGTG ACAATAATGG AGGTTGATTT AAAGTCCTTT GTAAGAATTA AGAGTTATAA 159360  
TAGACATAAA GTGCTGTATC TGGTATACCT AGAAAACATT CCATAAAAGT TAGTAATTGT 159420  
TGGTCATGTA ATGATGACTC TCTAGGCTAG GATTTCAGCT TCATTGCATG CACATGGTGC 159480  
ACTCACAGGG CGTGACCTCT CTCTGTCTCA GTAACCTCAT CTGAGGACCG GGATAATCAT 159540  
ACCGCTCAA AGGGATGTCA TAAAGATTAA ATAATATGTG TAAGGCTGCT TGCATTTAGC 159600  
TGCATTCAAC AAATATTTCT GTATCTTTCT CCTCATTTCT CTTACTTTC TTGCTTATTA 159660  
TCTGCTCTAG GTATAGATTT CAGAGAACTA AGCTTGTTAC AATCCTTCAT AAAATAACCA 159720  
GGTTGGTTAG GGCATTTCOA AGAGTCAATA CTGTTTAGTG ACTATTCTCT GTTTAATCTA 159780  
TTTTGATTGT CCAGGGTCAT CTTTGTCTAT GTCATAGGTT GTTGGCTTCT TCTAGAGAA 159840  
TGAGACGATG GACAAGTTCC AAGTGAGTGA GGCGACTGGT CAGGATATTC CGCTGAAAAA 159900  
CTCATGTCAG TTCTAATTCG TGATTGTAAT TCAATCACAG CCTGAGAACA GTAGGACTGT 159960  
AGTTCAAATG CTCTGTTCCC TTTTTTTTTT CCCAGAGGAT AATTTTTTTT TTTCTTTGAG 160020  
ATGGAGTCTT GCTCTGTAC TAGGCTGGAG TGCAGTGGCG TGATCTCGGC TCACTGCAAC 160080  
CTCCGCCTCC TGGGTCAAG CAATTCTCCT GCCTCAGCCT CCAAGTAGC TGGGACTACA 160140  
GGCACATGCC ACCACGCCCC GATAATTTTC GTATTTTATG TAGAGACGGG GTTTCCCTT 160200  
GTTGGCCAGG GTGGTCTTGA TCTCTTGACC TCATGATCCG CCCACCTCGG CCTCCCCAAG 160260  
TGCTGGGATT ACAGGCGTGA GCCACCGCGC CCGGCCTCTA GAGGATAATT TTTAAATGTG 160320  
CTTTTGCAAT TGGAAAATGT GATTGGCATT TTTTCTAAT TTTCTAATAT GATACGCTGT 160380  
CGGATGCTAT GGATTACTTA AACCTCTGG CTACCTAGAA AGATCTTTAA GTGGTTCTCA 160440  
ACAAGCTTCA TACGCAATGT AAATTGTATT ATCTCTCAGG ATGTGTGAGA ACATCTGTTT 160500  
TTCTTCTAAT GCAGTAAACA TATAAGGGTC TCTTGGGATA TCTTTTAAAT AGACTTAATA 160560  
CAACATTGAG GAATGATAAC AAAATATAAT CACAGTTGTA AGGGAATGTG AGCATTTTCA 160620  
ATTAATAACA TTGGAACCTT ATGTTTAAATA CAGTGTTAAA AGTTGACAAA CATGTAGGAG 160680  
TCAGAAAATT CAATTAAAAAT TATCACAGTA ATATGAATTT AGCCACATCC TGTGTTAGTT 160740  
ATGAAATCCA TTTAACACCA CAAACAGTAA TATTTTATAGC CAGTTTATTC AAAAGGAAAA 160800  
CAGGAACTAA ACCACTTTC TGAATATAT ACTCTGTAA TGTGGTCAGG CTAATTTTGC 160860

FIG. 6.61

TGGGGGAAGG AACTTAACCTT TTGAATATTT GAATGCCAG TCATTTAATC TGAATATCCT 160920  
ATTCCTTGCA ATGTTGCAAA ATTTTGTCA ATAAAAGGCA GAAAAAGAAA TCTCTTCTCC 160980  
ATGCTCATCC CTAAGAGAAT GGGTTGTCTG TACCCTGAGA GCATTTTATG GAGGGGACAA 161040  
CCACTTTTCT AATTTTCTT CCCACTTCTC TGTGGGCACA AATGCTCTTT GGTTGAAAGA 161100  
GTTGTAATTC AGTCCCAAGA TGAGGTGTGG TTAAGTGCATC CCTAACCTAT ATCTGGGGAC 161160  
CCCACAGCCA CACACATGGG GGAAATGGAG CTTGTCTATC AGTTCTCCAG CCATTGCACA 161220  
GGGTTCTATG ACTCTTCGTT GATCCACCCC CAGCTTCTT CTCTCTGCTA GCCGAACACA 161280  
CTTCTCTCTT CTTTATCAGG AGGCCATAGG AGAAGGGCAT TCATTTTAA TACACATACA 161340  
TCTGCATCAA GTCTAATTTT GCCATGTCTC AATCCAAGT TCAAATGGGT TGTGTTGGGG 161400  
CTATGGTGCT TATCAAACAT TTAAGTCAAGA ATAGCCAAAA TTAGCCAAGC AAGGAGAACT 161460  
TCAGCAACGT TCCCAAATGG CCCCAACCAA GTACTGTAAG ACTGAGGATA GCTAAAGGGT 161520  
CTTGAGAGGG ACTTCTCAGG CAGTGGCCCC GACATTTATC TGTTTTTTA AGTGAGAAAT 161580  
CTGAGTACCA TTCTTGACTC CTCTTCTTA CCCCCAACCC CTCCTAAGC CTTGTGCTAC 161640  
TATTTAGTAA ACAGACCTC AATGCACAAA CTTCTGTCTA AGGCCATGGC CACCACCCTA 161700  
GTCTAATCCA CCATCTCTT TCTGGAACAG ACCCCAGCTG CTCTCCCTGT CTCTGTGCTG 161760  
GTCTCTCAAT CCATGCTCCA CACTGCAGCC AGAGTGCTCT ACAATGCAA TCCATTTGTG 161820  
AGACTCCTCC TCTTAAATC CTCAAGTGGC TTCTCTTGC CCCAGGATC ATTTTGAAAC 161880  
TCCTTAATGG AAGAGGCATG GCCCTTTGGG ATGTGGTTCC CCAACCCCTC CCACATCATC 161940  
TTTTCAATCA GATTTCCAC TAAATGGAAA TTTTTCAGG TCCTCAACTT TATGGTGACT 162000  
TTCTCTTGCT CAGGATCTT GAACATACTG TTTCTCTT CTTTTGTAT TTGCCAAGAC 162060  
AACACTTCCT CTGGTAAGAT TTTCTGACA TCCTCTATAA AAAAAGATTG AGATAGTTGA 162120  
CTACCCAAAA TGTTCCCAT TCATTCCAAG CTCTATTCAA GGCAGTAAAG TGCCCGGCTG 162180  
ACAGATTGCA TTCCTCATCT TTTCTGAAGC TAGCAATGGC CATGCAACAG CATTCTGGCC 162240  
AATAAGATAG AAGTCGAAGT TGAAGGGTGG GATTTCGAAG AAAGCTCGTT GAAGACATAA 162300  
TTCTCATTT CACTTCTTAC TCTTCTCTT TCCTGCTTCC TAAATGCGG TGCAGATGGC 162360  
AGACACTTCA AAGCTGTCTC AGGCAATCAG GTGATGTTAA GGCAGAAACC AGCTTTATGA 162420  
TGGGTAGAAG AGGAAGAAAG AAGGCACCTA TGTTCTTGT CACCTTGAAC CACACCAGCA 162480  
CTGCCTTGCC TACCCCTGGA ATTCCTTTAA TGAGAGGCAA ATGAGAGCTT ACGTGTTTAA 162540  
GCCATTGCTA TTTTATTTT TTTTGTAT ATGCAAAAGA ACTTAATCCT AACTGATATT 162600  
AACACTAAT GGGTCTATTG CTTGGTACCA AGCCAATGCA TGACACATGG TATATATGCT 162660  
CAGTAAGTAT TTGTTGAATG AGTGAGGCAA TGAAAGAACA TAGAGGATAT ATATAACAGT 162720  
CCTCCTGCCC AGATGTCATC TGATCCTCT TAGGATCTGG GCCCATAAAA CTGTATCTGA 162780  
TATAGTTTGA ATATTTGTTT CCTACAAATC TCATGTTGAC ATTTTATCCC TAATATTGGA 162840  
GGCAGGGCCT AGTAGGAGGT GTTTTGGTCA TAGTGATAAA TGGCTTGGTG CCGTTCTCAC 162900  
AGTAACGAGT GAGTTTTTAT TCTAGTGGT CCTGCAAGAA CTGATTGTTA AAAGAGCTTG 162960  
GATCCTTCCA CCCCTCTCTC ACTCTTGCTT CCTCTCTCTC ACCTTGTAAT CTCTACAAGC 163020  
TCTTCACCTC CCCTTCTCCT TTTGCCATAA GTGGAAGATT TCTGAGGCCT CACCAGAAGC 163080  
AGATGTTGGT TCCATGCTTC TTGTACAGCC TGCAGAACCA TGAGCCAAAT CAACTTCTTT 163140  
TCTTTATAAT TATCCAGTCT CAGGTATTCC TTTATAGCAA CACAAATGGA CTAAGACAGT 163200  
TTCTAATGCT ATGGTTCCTT TAGTAGGTCA GTGTAAACC CTGGATCACT CCTGTAAACA 163260  
ATTACTTGA ACTCTTCTCA CCATACATAT TAAAAATAG TTGCCATGTT GAAATCCTA 163320  
TAAGATCATA TTTTATTTC AATCCAACAA CTCATTGCTA AGGAGATACA AGAAGCAGAA 163380  
AATACAGAGA GACTAATGTG TTGATGATTT TTGTGAGGGA CATAAGGTCT GTGTCTAGAT 163440  
TCATTTTTTT GCATGTGGAT GTCCAGTTGT TCCAGCACCA TTTGTTGAAA AGACTATCTT 163500

FIG. 6.62



TGCTCCACTG TATTGCTTTT TCTCCTTTGT CATAGATATC TGGTCACCTT ACCTTAGAGT 163560  
CACAGATGAA TGGTCCTATT ACTTAACTAC TGAAAATACA GGCCAAAGCA AACAGAGGAA 163620  
TAAGGGATAT ATAATAAAGT ATTTGTGTAC TTGACTTGGC TCTAAAGGAA GCATTGCGTG 163680  
TCTGTGTAAA AAGAATGGGT GAGAGTTTTC CACCATTCAA TATTTCTAAT CTTTCTGAAA 163740  
TACAAAGCCA GGACATCCTC TAATCCATAC ATTCCATAGT TTGGTTAATA TAAATTCCTT 163800  
TATTAAATCC TTATTAAATA AAGTTATTTA TGTTTCTATG AAACTCATTT TAACTCCTAA 163860  
GTGAAAAATA CTA CTGAGCT AACTAAACAT CAAACATTTT TAATTTTTTA AATTTTTTTA 163920  
GAGACAGGGT CTTGCTATGT TGCCCAGGCT GGCTTTGAAC TCCTGTGCTC AAGCGATCCT 163980  
CCAACTCAG CCTCCCGAGT AGCTGGGACT ACAGGTGCAT GCCACTGTGC TCAGCTAAAC 164040  
ATTTTTTTGA AATGCTCTTT TAAATCAAT TTTATTGAAG TATAAGTTAC ATACCATAAA 164100  
AGTACTCATT TTGAGTGTAC AGATTGACAA GTTCTGACAA ATGTGAACAA CCATGTAACC 164160  
ATCACCAAAA ATAAAGATAT GAGACATTTT CATTACCCCA AAAAGTTCCC GTGTCCCTCT 164220  
CCAGTCAATA TCCAGCCCTA GCCCCAGCTC CAGGCAACCA CCAATCTGCT TTCTGTTGCT 164280  
ATAAATTGTA CTTATCTTTT CTAGTGTTC ATACAAATGG AATCATACAG CATTACTCT 164340  
TTTGTGCTG TCTTCTTCTG CTCAGTGTA TGTTTTTGAG ATTCATCTAT GTTCTGTGCC 164400  
TCAGTAGTTT GTTCTTTTTA TTA CTGGATA ATTCCATTAT AAGAATATAC CACAATTTGT 164460  
TTATCCATTT ACTGCCTGAT GGGCATTGG TTGTTTCCAG CTTTGAAC TA TTTGAATCC 164520  
TAAAAGACTG CCAGTTTTGA ATGAGACCCC AGAACAATGA ATGTAGGCTC TGTATACAAG 164580  
TTCAGGCTGC TGGGCAACTT AGGCCTTAAG ACACAACCTC GCCACTTAGG CCTTAAGACA 164640  
CAACTGACAT GATGGTGCTT AAAGTGGCTG TGATGGAAAA GGAGGCTGTT TGGAGCCTTT 164700  
GGAGTGCCTT TATAGGTGAA CCCCAGCATA GCACCTAATG ATTTGGAGCA AAGCTGTGTC 164760  
ATTCCCCAAA GATAACTATT CGCCTTTTGA GAAACATCTT CTAGCTACTA TCAATAATAA 164820  
ACACAGAATG CATCACCATG GGCCACCGTG TTGTCTTTTG ACCTGAGTTT CCATTGTGAA 164880  
CAAGAGTCAT TTGATCCAAG GCAGAAAGTT GGGTGCACAC AGCAGTGTTT CATCATCAAA 164940  
TGGAATATGA GATTGGGCCC AAGTAGGTCC TGCAGACACA AATAAGTTGC AAGAGCAAGT 165000  
AGTACAGGCG CTTGGCCTGG CCACTACTGT TGCCAAGTTG ACTGCTTCCC CTCAGTCTGC 165060  
ATCTGTGGCT TCATGGGGAG TTTCTATGA CCACTTGATG GAGGAAAAA CAAATTGGAG 165120  
CATAGTTTAT AGTGCTGGTA CTACCCAAAG TGGCTAGCTG AGGCACTACA TCTCCACTCT 165180  
GGGGTGCCCC TGAAGGACAG TGCCAAAGGA AAACCCCTC AGTGAGCAGA ACTTGGAGCA 165240  
ATACAAGTGG GTGTTCAATTT TACCTAGAAG AGAAGATGTC CGTGAGTTAC AGATCTACAC 165300  
AAAATCACAG AGAGTGGTTA ATCGTTTGT CTGATGGTCA GGGACTTCCA AGAGACATGA 165360  
TTAGAAAAC TGTGACAAGG AGTCCTGGGG AAGAGGCATA TGGATACCTC TGAACACACA 165420  
CAAAACATGA GAATATGTAT CCCATATGAA TGTTAACCA AGAGCAGCCA CAACAGAAGA 165480  
GGATTTTAAA ATCAGCTGAA TAAGATGATT CATTCTGACA GCATCAGCTA GTCTCTTTCC 165540  
CCAGCCACTG TTGCCAGTG GGCTTACATA TATCATGGCC ATGGGGGCAG GGCTATGTAT 165600  
GGACACAGCA ACATGAATTT CCACTCATCA AGGCCAATTT GGCTCCAGCC ATTGCTGAGT 165660  
GCTCAGCCTG CCAAGATAGA AATCTACGCC AATATGGCAC CATTCCCTGG GCTAGAAAAC 165720  
CAACTGGTGG AAGGTTGATT ACATTGGACC ATTTCCATCA TGAAGGGGC AGTGCTTTGT 165780  
CTTCCCTGGA ATAGACATTT ACTCTGGATA TGGATGTGCC TTCCCTGACT ACTACAATGC 165840  
TCTGCCAAAC CTACCATCCA TGGGCTTAAT TTTATTTGTT ATAAAATTTT AACCAACATT 165900  
GCTTCTGACC AAGGAAGTAA TCTTACAGCA AAGGAAGTAC AGATATGAGC TTCTGATCAT 165960  
GGGCTTCACT GGCCTCACAG TGAAGCAGGT GGCCAGATTA GAACAGTGGG ATGGATTTTA 166020  
AAGGCTCAGT TACAGCACCA GCTGGGTAGC AACACCCTGC TGGCCTGGGG TTATGTCCTG 166080  
CAGGATGCTT TAAGTCAGTG ACCAATATAT GATGCTATTT CTCCATTGT CAGGATTCAT 166140

FIG. 6.63

GGGTCCAAGA ATCATGGGGT CAAAATGGGA GTGGCTTTTC TCACTATCAC CCTGGTGTTC 166200  
GGGTAGTAAT TTTTCCTTCC CATTCCTGTA ACTTTGGGCT CTGCTATTGC AGAAATCTTA 166260  
GCTCCTGTGG GGGGAATGCT TCCATCAGGG AATACAAATGG TGGTCCACT AAAGTGACAG 166320  
CTGAGTTTGC CATCTCCTCG TGCCAGTGAA TACACAAGCA AGGAAGGGGG TTCCTTTCTC 166380  
ACCTAGGGTG ACTGATCCTA ATTACCAAGG AGAAATTGGA CTGCCACTTC ACAATGAGGG 166440  
TGAGGAGTAT GTACTCTATG TGTCTGTGAT TAATGTCAAT AGAAAGTGAC ACCAACCTAG 166500  
TACACAGAGG ACTGATCATG GTCCAGGCCCTTTCAGGAATG AAGATTTGAG TCACCAGGCA 166560  
AGGAACTTGG ACTCACTGAG GAGGGCATAT TCCAAGGAGA ATATTTTATC TATGTCCATC 166620  
TATGTCCATC TATATCCAT CTGTGTTCCC CTGGAATTC CTATTCATGA ACATGGGGAA 166680  
TTCCAAGGGG AATATAGAAT GAGTAGTGGA AGGTAGTTAT AAATGTAAGT CAAAACCCAC 166740  
ACAACCAATT TGAGAAATGA GGAAGGTAAT AGTGTTGAAT ATGTCTTCTT TATCTTGATA 166800  
TAAATGTATT TGTGCATATA TTAACAGTT TATTTATTTA TTATTATTTT TTGAGATGAG 166860  
CTCTCGCCAT GTTGCCCAGG CTGGTCTTGA ACTCCTGGGC TCAACTGATT CTACCATTTA 166920  
GTCCTCCGAG TAGCTGGGAC TACAGGCATG CACCACCATA CCCAGCTGAC CAGTTTTTTC 166980  
CTATTCCTCT ACTTAATTTC TCTACTATAC AACATAATAT GTGTTAATGG TAGTTAACTT 167040  
TATATCTCAG TATTAAGTCA CAAGATATCA AAAAGGGAAT GCGACTTAGT TACAAGCAGA 167100  
ATGAATATCA CTCAAAGATG AATAAAGAGA AGAGGGTTAG TGCATTTTCT GTTGGATGAG 167160  
AGAAAGTTTC ATTGTTAGGC AGAAGCATGA TTTTGCCTTT TTTTTTTTTT TCCAAGGTCT 167220  
CACTCTGTGG CCCAGGCTGC AGTGCACTGG TGCGATCTTG GCTCACTACA ACCTCTGCCT 167280  
CCCGGGTTCA AGTGATTCTC CAGCCTCAGC CTCCAGAGTA GCTGGGATTA TAGGTGCGCC 167340  
AGGTTAATTT TTGTATTTT AGTAGAGAAG GTGTTTCTCC ATGTTGGCCA GGCTGGTCTT 167400  
GAACTCCTGG CCTCAAGTGA CCCACCTGCT TTGACCTCCC AAAGTGCTAG GATTACAGGT 167460  
GTGAGCCACT GTGCACAGTC ACCACGGTCT TTTTGGGAGG CAACTTTAGC ATGGTTAAGA 167520  
GGTGCGAATG GATGTTAAGC TAACACCAGG TAAGCCCTGG TAGATGTGTA TTGTGTCACT 167580  
GGGCCTACGC TGGAGCCATG TTTCCCCAAA TTCACTTTTC CTATGTACCT CTGGATTAGT 167640  
GTGGGCCACT GGAGACATTT CACATGAGAT GAGGAAGGTG GGAGTGAAGG AGCAGCATCT 167700  
TTTTACACTA AGCAGGTCGG GGAGGGCATG TGGCTCTGTC TCACATTGTT GGAATCTGT 167760  
CCATCATCTG GTTGGCTTAG GTCAGTGGGT GAGTTCACAG CTGTTCCAGC TTCTGCTGGA 167820  
AACTCCTTCG GTTCTCTGA CTGCTCCGTG ATGAGGGCAT CAGATTCTCC TGCAGAAAGC 167880  
CCCAGTGTG AAGTTGGGGC TTCATGTTGG TGAGTGATAG TTACGGGTTT TAGCCCAACC 167940  
TGTGGTTTCT TGCAAAATTC AGTGTCACT CAGTCTTGC GGTTTTGGT TGTCTTGCT 168000  
TCCCACACTT CATGCCTTTC TTTCCCTCCT GACAGTCTGC CCTTTAGATT TTAGGATTCA 168060  
GCACCAGCCA CAGAAACAGC AACCTCACTG TTAAGGGTTG AATTGTATCT CCCCAAAAGG 168120  
TAGGTTGAGG CCCTACCTGC CAGGACTTCA GAATGTAACC TCATCTGGGA ATAGCATCAT 168180  
TGCAAAATATA ATTAATTAAG ATGAGGGCAT ACTGGCTCAG GATGGGCTCC TAATTCAATA 168240  
CAACTAATGT CCTTCTATGA CAGCCACAGG AAGACAGAAA CGCCAAGGGA GAACACCATA 168300  
TGCTGATGGA GGCAGTGGCA GCTGCCAGCC AAGGATTATA ACCAGAAGTC AGGAAAAAGC 168360  
AAGAAGGAAT CCTCCCTTAG TGATTTTACA GGGAGCATAG CCCTGCTGAC ACCTTGATT 168420  
TGGACTTTTA TTCCCCAAA CTGTAAAACA ATACACTTCT GTTGTTTTAA GCCACTCAGT 168480  
TTGTGCTACT TTGTTATGGC AACTCCAGAA AACAAAAATA CACTCAGACT GTTTAATCAA 168540  
CCTCCATAAT TGCATAAGGT CTAATCCCTA TAATAAATCC CTAAAAATG TCTGTGTATA 168600  
TATATTTAAA AATATAAAAT ATCTTCTAGT GGTTCTGCAT CTCTGGTCAA TCCCTGACTG 168660  
ATACAGAATA TGTATTTTCA TTTCTAATGA TGAATACCT GAATGAAATT TCTAGGACAT 168720  
ATGGTAAGTG TATGTTTAGC TTTTAAGAAA CTGCCAATT GGGGGAATTG CTTGAGGCCA 168780

FIG. 6.64

GGAGTTCAAA CAGCCTGGGT AACAGTGATA CCCTGTCTGT ACAAATAAA AAATATTAGC 168840  
AGCGTGTGGT GGTGTGTGTC TGTAGTCCCA GCTACTCAGG AGGCTGAGGT GGGAGATTCA 168900  
CCTGAGCCCA GATCTTTGAA GTTATAGTGA GCTATGATCA CGCCACTGCA CTCTAGCCTG 168960  
GGTGACAGAG TGAGAAAGCT GGTCTCTAAA AAACAAACAA ACAAAAAAGA AACTGTCAAA 169020  
CTCTTCCCAA CATGTTGCCA TTTTACATT TACCATTTTA CATTCTTACC AGCAATGATT 169080  
GATAGTTCCA GTTGCTCCAT ACCCTTGCTG ACCATTCCAA TAGATGTATT GTGTTATCTC 169140  
ATTGTAGTTC TAATTTGTAT TTCCCTAGTG ATTAATGATG TTAAACATCT TTTCATGCAC 169200  
CTATTGGCTA TATGTATATC TTCTTTAGCA AAATATATGT TGTTATTTGA AGAGCGGAAG 169260  
TTTTACATTT TGATGAAGTC TAATTTATTG ATTTTTTTTT TCTTAGATGG CTCATGCTTT 169320  
TTGTGTTATC TAAAAAAAT TTGCCTTCTT CATGGTCACA AAGACTTTCT CCTATGTTTT 169380  
CTTTTGAAG CTTTATATTT TTAGTTTTTA TGTTTATGTT TAAGACCCAT TTCTAGTTAC 169440  
AATTTGTGTG ATTTTTTGA AGGGTCAAGG TTCATTTTCT TTTCCATAAG AATGTACAGT 169500  
TGTTCTAGCA CCCTTGTTAA AAAGACTTTC CTTTCCCAT TGAAGTACTT TGTCAAAAAT 169560  
CAACTGAGCA TATATGGGCA TCATGAATTT TAATCCTGTT AGAACTGAAT GTTCCCAAGG 169620  
CAGGCCATGC CCATGACTGA CCTCCTTTCC TTGGATTGCC TACAAAACAG ATAAAGCTAA 169680  
GTCTGGAGCA AAGAAATCCA TGTCTAACCT GTATTTTTTT TTTTTTTTTT TTAGATGGGG 169740  
TCTCGCTCTG TCACCCAGGC TGGAGTGCG TGGCGTGATC CCAGCTCACT GCAATCTCTG 169800  
CCTCCTGGGT TCAAGTGATT CTCCTGCCTC AGCCTCCCGA GGGGCTGGGA TTGTAGGCGT 169860  
GCACCACTAT GCCCATCTAA TTTTGTATT TTTAGTAGAG ATAGGGTTTT GCCATTTTGG 169920  
CCAGACTGTC TTGAACTCCT GACCTCAGGT GATCTGCCTG CCTCGGCCTC CCACAGTTTT 169980  
GTGATTATAG GCATGAGCCA CCGTGCCCGG CCTTAACCTT TGTTTTCTTA CACAACACAC 170040  
TACGTGATGT TTTCCACATG CATGGGTCAT TTGCTTCATT TACGTACAAA TGCATAAGCA 170100  
ATATACTGTG TGGTGTGAGT TTGTGATGGG AAAAGGAAGA AGTTTTGCGG ATACTACACT 170160  
GGCTTCCTGC TATCTGTCTG TGTGAATGGC TATGGACTTT GTCTTCTATT TGTTGCTTA 170220  
GCGCAGATAT GATCAGCTTA CAACTTAAGA TTCTAGAGAA AGAGGGTCAT ATCTGTAAAG 170280  
CACTCTGAGC ATGTGTGAAG TTTAATCAAT AGCATATGAG GTTACAGCAA ATTCACTATC 170340  
TTTGTTCCTT CAGCTATAGA ATGGCATGAG GATTCATCTC AATTTAGTTC AATTCTGTTC 170400  
AGAACCATGA GCTAGCTGTT CATGGAAGGA AAGCCACCT GATTGTGGCC AGGGAAGGAG 170460  
AAACAACACT TTAACCAGGT TGATTTGGTT CTCACAGACA CCATTGGCAT GTGACATCTG 170520  
GAACAGACCA TGCCTGGTCT CTGTTCTGAT CACTTACTAT TCAGCTCAAT ATTGGTCTGA 170580  
ATATTCTTTA GACTGACTGA AATGAAAAGG AACTGTTGTG TAACCATCCA TAATTCCAGC 170640  
CTGTAGACCT GGGCTGTATC TCTATGCCCT GCCTGGCACA GACCCACCT CCTGCTCCTT 170700  
CTCCCTCACC ACCAGTCAAT CTTGTCCTA ATGAACAGGG AGGGCAACCC TGAATGGGGA 170760  
GTGGAGGGAA GAGATGTCAT GAGATGGCAA CGTGCACCCT GAAGTGAGGA TGAAGGCTAT 170820  
GTGAATGTTG TAGGCTGACA GCCGGGCATA GTGGCCCCGT TGCCATGGCG ATGGAGGCAT 170880  
GTTGATGCGA AGTGTCTGCA CAGCTCCTAG GATTTTAAAC AGCAGCTGGG CAGAGCCTCG 170940  
GCGTCCCTGA ATTGTTGCCC CCCTGAGTCA CTGCTTGGCC CCAGCTGTCC TGATCTCTGT 171000  
TGACAAATGG TTGTCCTTCA CAGTCAAAC ACTAACAGTA CTCTAATTAA TGAATGTGCT 171060  
AATTATTCTT GCCTACTCCC AGCATATTTG TCTAACTAAC CTGTCACACA CAGATCAGTG 171120  
CAGCATATGC ATAATTACGG AGAGCGCTGG GAGCAGGGGA TGGGTGGGAG AGGGGTGGGC 171180  
TCGCAGCCCT GTCGCTGTGG GATATTTCTT GTAAAGTTAC CTTTGCTAAC GGTGAGATGT 171240  
CGTGGGGATA TGTTATTTCC CGTGAAGTGT ATATGTCTTC CTTTCTTTCC TTTCTAAGAA 171300  
TCTCTTTCA GGGCTGAGGG GCCATTGCTC AGTGCTTTAG CCTGTGAGGG GATTGCCAGG 171360  
TACAAATGCA GAAGGACCAG GGAGCCCAGG TTCTGAAGAC GATTCCGGTA GCAGCACGTA 171420

FIG. 6.65

GGGTGATTAA AACTCCAGAC TTAAAGCCA GACCGCCTG GGCTTGAACC CTTGTTCTGC 171480  
TCCTTGCTAT GTGGGTCTTT GCCTTGACCA CATTTTTTTT TTTTTTTTAA GACAGGATCT 171540  
CCCTCTCTTG CCCAGGCTGT AATGCAGTGT TGCGATCACA GCTCACTGAA GCCTCCATCT 171600  
CTACAGCCTC AAGCGATCCT CTGCCTCAG CCCCAGTAG CTGGGACTAC AGGTCTGTGC 171660  
CACCACGTCC AGCTAATTTA CTTTTGTAGA GTTGGGGGTC TTGCTATGTT GCCCAGGCTG 171720  
TTCTCCAACCT CCTGGACTCA AGCCATCCTC TAGCCTCGGC CTTCCAAAGT GCTGGGACTA 171780  
TAGGCGTGAG CCACGGTGCC AGGCCCTTGA CCACATTTTT AACCCCTCTG AACCTCAGTT 171840  
TCACTTTCTG GGCAATGGGA GGGGGGTAAT TTGTCCCTCA GAGGGTTGCA CTGAGGGGCA 171900  
AATGTGAGGC TCTGGGTACA ATGCCAGTA CAGACTAGGT CCCCACGACA CAGCCGCTCA 171960  
GCGGCTCCGG ATTCTGGGCT GCTCTGGA CTGCGCCAGGC GGTCTTCTGC GGGAATCCGG 172020  
GCAGGCAGGG CGGGCTGCGC TCCCCTCCCC GGCTCTCCCG GTGCCCCTTG TCTTTTTGTT 172080  
CTGTCTCAGC AGCTCTCTAT TAAGATGAAT GGCATTTCCA AAGGCTTCAC CTCTGATAAG 172140  
TGTTCTCTG CAGCTGCAGC CAGAATCTTA ATGTGCGCGC TGAATTTAA TGGCCGTCTC 172200  
GGCTATTAAC ACGCTCTTCT CGGGTGAAGT GGA CTCCCTC CATCCCCGGG CCTCTGCACG 172260  
TGCTCTGCGC GCTGGCTGGG GGTGACTCCA AGGAGCTCAG AGCGGGGTGC CCGGCACCTC 172320  
TCGCCAGGCG CCTTTCGACC TTCTAAAGCG CGAATGGCTG GACTTTTCTC CCATGTGTGG 172380  
GGCCCCAGAA GGTGTGGGGC CCCAGAAGGT GTGGGGTCCC TCGTTCCAC GGAGCCCGGA 172440  
AGGTTTCCAG TGATGGTGGG GGCTGACCAC GTTGGTCCCC GTGGGTGCTG TTTTCATGTG 172500  
CCGGCAGATT GGGATGAGTT TAAAGACAG AAGCGTGTAG GATAGAGAAA CTTCTTTAAA 172560  
AACTGGAAAT TTTAATCTGG GGATTATAAC TATTGGACAG TCAAGTGCAA GAGTGAATAC 172620  
ACTTCTCACT CCCTCCTCCC AATTTTTATT TGCGGGATTA GTCAGTCCCC CTCTGCCACA 172680  
TGATAATTGT GAGAACTACC AGGGTCTTCA TTCTCCTGCC ATCTGGTTGA CCTCTCCAAG 172740  
AATGGACACC CGGGCAGCCT GGGCCATGA GGCTGTCCTA AGAGTTTAGA TGAGAGAAGT 172800  
CAGTCTTTGA CAGGTGATGG AAGCTGTAAA ATGTAAACT CCACAGTTGG TGAAGATGTC 172860  
TCCAGGAAAC AGGTCTGCAG AGAGAATACG TTTGACATGC TAAGAGAAGC TGAGAGAGAG 172920  
CGAGAGGAGA GATTGGAAGA AAGACAGAGA CAGAGGTAGA GAGAAGGGAA AGAGAGAGAG 172980  
AAAGGGACAG AAGAGAGAGA AAAAAGAGGG GGCCGGGCGC GGTGGCTCAC GCCTGTAATC 173040  
TCAGCACTTT GGGAGGCCGA GGCGGGCAGA TCACGAGGTC AGGAGATCGA GACCATCCCG 173100  
GCTAACACGG TGAAACCCCC GTCTCTACTA AAAAATATAA AAAAATTAG CCAGGCGTGG 173160  
TGGTGGGTGC CTGTAGTCCC AGCTACTGAG GAGGCTGAGA CAGGAGAATG GCGTGAACCC 173220  
GGGAGGCAGA GCTTGCACTG AGCTGAGATC GCGCCACTGC ACTCCAGCCT GGCAACAGA 173280  
GCAAGACTCC GTCTCAAAAA AAAAAAAAAA AAAGAGAGGA AGGGCGGGAG AGAGAGAGAG 173340  
AGAAAGCTCT CTAGCTCCAA GGCCTAACCA CATCTCTGTT CTTTTCACT TCAGCTGTCA 173400  
GATTTTTAGA CTCTTTGAGT GAATAAATC TCCTTTTGC TTAACTAGT TTGAGCTAAG 173460  
TTTCTATTGC TTGCAACTGG AATACTTGT AAGAGGACTG GCCTTCATT CTGATGCATT 173520  
GTCACTAAGA TGTAAGTGTT AGAAGAGCTA ACGCTTTATG GGGTTCAAAC TCCTTGCTA 173580  
CCAAAACCTA AACATCCCCT GAAACTTACC AAAGTGCAGG TATGAATTGG ATCTCACTAA 173640  
GGTGAATATA CAAATCTTGC AAGTGCTGAG CCCTAACCA TCTTGTAATA ACTCTGTGGT 173700  
AGTTAATTTT ATGTCAAATT GATTGAGCTA AAAAATGCC AGGTAGCTGG TAAAATGTTT 173760  
TTTTCTGGGT GTGTTAGGGA GGGTGTCTT GAAAGAGATC AGCACTGGAA TCAGCGGACT 173820  
AAGTAAAGAA TTCCACCCCT CACCAATATG GTGGGTGTCA TCAATCCACT GAGGGCCTGA 173880  
ATAGAACAAA AAGCGGGCAG AAGGGCAAAT TCCCTCTTCT TCTTGAGCTG GGCCATCCAT 173940  
CTTCTCCTGC CTTGGACAC TGGAGCCCCT GTTCTCCAG CTTTGGATT CAGACTGGGT 174000  
CTTGACCAT TGCCCTCCAT CTTCTCCTGC CTTGGACAC TGGAGCCCCT GTTCTCCAG 174060

FIG. 6.66

CTTTTGGATT CAGACTGGGT CTTGCACCAT TGCCCTCCTT GATGCTCAGG CCTTTGAATG 174120  
CAGACTGGTC TCCACCAGCA GCTTTTCTGA GTCTCCAGCT TGCAGATGGC AAACCATGAA 174180  
ACTTCATGGT GTCCATGAGC ATGTGAACCA ATTTCTATTA TAAATCTGCA ATATATATAT 174240  
ATGAGGAGAC TTATTTATAT ATTGGTTCAG TTTCTCTGGA GAGCCTTGGC TAATATAAAG 174300  
TCTATACTCT ACAAAGTGCC CTAGGTACTC AGGGAGTACC CAAGTGTGTC ATGACCAGCC 174360  
CGACAGCCCT GGCTGCTGGC TTCCCCGCAC ACAACTCTGC ACGCTGCCTT CATCAGCCTT 174420  
TCTCTCTCAG CTGAACCGAG GGCATTGAAG CGGGCCTCTG GCACTGTACC TATGAGGGAG 174480  
CAATATCTTC CCCTACACTG ACCTCTTCCG TGCCGAGATG CAGCCCTCCC TGCTGCCACT 174540  
AGTTACAGTG GTCCATGTTT CCTTTCAAAG TGAAGTTTGG ATAAAAGCAC CTCTTAACCA 174600  
ATGCCAAATA GCTAAGTCTG GGACAAAGAT TGCAGGTATT TTGCATTTTC CATGTAACCT 174660  
CAGAGGGGATT GCCATTCACT CTGATCTGAG CTGCAGAATA CCAGGCAGCC ACCTCACCCA 174720  
CCCAGCAGGT CCACTCTTAT ACTTTCTCAG AAAGCACAGC CACTCTACTC TTATTCAGTT 174780  
GAAAAGAATT TCCAGGAAGG TGTTTCTGCG ATTGCCTCAG AAAAGTCAGT TCCCTTTGGG 174840  
AATTTCCCTT AGGGATCATC TGTAAGTCCA TTTCTGCCTT TTACCTGAAT TCTTTGGTTT 174900  
GGTTTGAATT CTTTGGTTTA ATTTATGAAT TCCCTTTATT ACTTTTCTCT GAAGAAATGG 174960  
AGATATCAGC TGTCCTCCC CACTGCCATT TATTCCTTCC TTCATTCAAA CCTTATGTGG 175020  
CTGCTACTTA CCGTGTGTTA AGTGTTCACT TTTTCTTG GAATTCAAAA AAAGAAGGAC 175080  
AGTATTTGGG GCACAGATCT TTTGGTGTTT TATACATTTT TTTAAAGTTT CATTTTACAT 175140  
TTGTGTGTGC GTGTGTGTGT GTGTGTGAGA CAGTCTTGCT CTGTTGCCCA GGCTGGAGTG 175200  
CAGTGGCATA ATCATTGGCT CACTGTAGCC TCAAAGTCCT GGGCCCAAGC AATCTTCCCA 175260  
CCTCAGCCAC CAAAATGCT GGGGTTACAG GTTTATGCCA CTCTGTCTGA CCTGAAAGTT 175320  
TTGGGTTTAC TTTCCCTTCT TTCTCTTGC TGAAGTCAGA GATGATGGCA GCTTCCAGAT 175380  
TCTCTGGTGC CTGTGCTGGG CTCGTGCTGG TCATGGTCTT GGGTCCAGGA TTCATTCTGG 175440  
AGACTCTCAG GGAAGTTTCC CATGACAAGG AAATGTAGGA GAGTGTGCTG GCTTTGCGTG 175500  
CTCCTCTGCC AAGCCCTGCT TCTCCTGGTG GGACACACTG AACCACAGCC AGGGCATTTT 175560  
GGTGGTTAGT TAAAAAAAAA AAAAAAGGAA GAAGAAGGCA CTGTGTAATT 175620  
GTGCCGGGGA TCTTCAGAAA TTGTAAATGAT GAAAGAGTGC AAGCTCTCAC TTCCCCTTCC 175680  
TGTACAGGGC AGGTTGTGCA GCTGGAGGCA GAGCAGTCCT CTCTGGGGAG CCTGAAGCAA 175740  
ACATGGATCA AGAACTGTA GGCAATGTTG TCCTGTTGGC CATCGTCACC CTCATCAGCG 175800  
TGGTCCAGAA TGGTAAGGAA AGCCCTTAC TCAGGGAAGA ACAGAAGGGG AGATTTTCTT 175860  
TGATGGTTGT TTGGAAGTCA GGCTTAAACA ATTGTGTCTG TGTGTGCGCA TGCACAAACA 175920  
CTTTTACCTT ATCTTTATTT TCTTCTTTT ATTTGAATGT ATAGGGTTGT GTGTATTTCT 175980  
GTGTAAATTT GGGGTTTTCC TCCTCTTAGT CTTTCACTTT TGTGGTGATT ACCAGTCCCA 176040  
TTTTTAGAGC CAGGGCTGCA ACTTGAAGGT TTTGCTAAAA CCCTCACCGA AGTGTCTATG 176100  
ATCAGCATTT TAACTATTAA TTAATGTGGC CAGGCAAGGG GTGGAAGGTG AGAAGACTAG 176160  
AAAGGGAACA TGATATACAC ATTTACTCAG ATACTGGGCT TTTCTAACAT CTGCAGTGCA 176220  
ATTGAAGTTA CCAGTCATCT GCAGTCTAAA AAGAAAGTGA TTTTGGGAGG TCGTAGAAAA 176280  
AAATCATCTT ATTATTTTCT CTCTATATTA CTTTTTCTT TTTTCTCCT GAAGAACTT 176340  
TTTTTTTGG TGATACCTTC TTTTCTCTA GCACGTATAA TTTTGAAGC ATTTTTCATA 176400  
TGCAGTGTAT ACTTCAGAAA GAGAGAGAGA GAGAGGAAAA TTGTCCTGTT CAGCGTTTGC 176460  
ATTTCCATTA TTCCTGCTAT TAGTTAAAAA CAACAACAAC AACAAAAAAC AAGCAGGATA 176520  
CCTAGATCTG GAAAAGGGAG AATTGTGTAG AGCTGTCTTC CTAAAGTTCT GAGTTAGGGC 176580  
TGCCCTCAGAC CACTTTCATA ACTATCTCCA GTGGCTTTGT GTTTTATATT TATTAAGATA 176640  
GAGAAAAAAA GAGTAATTAC TAAGGGCAGC TGCTGTAGCT TTATGGTGAT TACTGAACAT 176700

FIG. 6.67

TGACATGCTG TCACGTTTTT GGAACTTTGA GTATTTAATC ACTTTGGGAT ATTCTATTTT 176760  
CCCCCATCTT GAGTGTGGAC AGATGCTGGT GATGTAGCCT TCTGGGCACA GAGCAAGCCT 176820  
CCCCCTCAGC CTCTGCACCA GAAAGGCTCA GCTTCACACA CTCCAAGTAT GTTTTCTACA 176880  
AGAACTACAC TTTGTGGCTT TCTGACCCAA ACATTTTTAT ACTAAATTAC ACACAACAAA 176940  
GTTGTAGCTC AGAGAGGGAA CAAATGGCTT ATTTAGGCCA CCATTTTCTT GAGCCATTAT 177000  
GATTTACACAG AGGGCTCCCT TGGCCCTGTA AATTGGCAAG GATTCCATTA TTCAACCCGC 177060  
ATACATGTAC AGAGACCCTG CTCTGGCCCA GATAGTATTC TGGGTACAGG CGGATAGAGC 177120  
AGGAAACAAA ACAGCTACAG TGATGGACAG GTCAGCCTGC AGCAATGCCT GCAGTCTCTG 177180  
CAAAGGTAGC TGTATGGGTG GGCAGGTGGC TAGCACTTAT TCAGCTCTGG AAGGATCTCC 177240  
CCTCTGGCCT CTCCCCTGAC ACCCATCAAT AAAACTGAGG AGCATCGGTG GACAGGGGAC 177300  
CTTGCGCCCC CTCCCTGCCT GTGCAGTTGG GGCTGAACCC AGCTACGAAG TTTGAGCTCA 177360  
CTCTCTCCAG CTCCCTCTCA ATTCAGAGCT GAACTGTGGG AAGCTTCAGA GCTCTCTGTT 177420  
TCAAGGACAG GTTCTCCTCA CCTCTCCTAA TGGAGGTGCA CCAGGGAAGT GGCCCTGCTC 177480  
TGCCAGGGG TTTCTCCTGG ACTTTGCCAT CATGGTCTAG CAAACCCTGT TCAGATTGAG 177540  
GTGAGTGGTG AGATTTGAA TTCTTTTGA CAGATAGGAT TAAGTCTTCT TCTGTGGGAC 177600  
AAGTGGGAGG TAGAGGTAAG ATTAAAGATG GCCAAATGTC TGAGTCCTGA CAGCCACAAT 177660  
ATGGAGATCT AGACTTTTTA CAGACCACAG GGCACAGGGG CCTCACTAAC AGAGTTCCCG 177720  
GAAGTGATGA GTGTGCTGGG GGCTTCCTGG TTGAAGAGAC ACTAGAATGG ACCAGCTGGG 177780  
AGCTAATTTT TTGGGCTGGA GTGTGATGGC CTGCACATCA CTGCCTCTGT CCCTCCATTG 177840  
TCACAGCTGC CCCTTAGGAG CCAGCTGAGG CAATTTGTGG TCAGAGTGAC TTTGCACAGT 177900  
TGTCTGCCT GTGTTAGGA AGGGAGTTTC TGTGGTCCCT TTGAAACCAC AGAAGAGCCC 177960  
CTCGTATAGC TCTCAATGGA GGGGGCAAAA CATTCAAATA ACTCAGGAGA TAACACAAC 178020  
ATTTGTTTTT AACTGTGAGT TTTTAGGCAA TCACAAAGAT CCAGATGTAT GTCCAAGCCT 178080  
CTCTTTGCAA TTCTAATTAA CCTCAATGTT GCAACCATAG ACCTACCTTA CAGAGTTCAA 178140  
AAAAATATGC AAAAACCCTG CCTTCTTCT TCCTCATACC CCAAAATGCC ATTCTGAACA 178200  
TTTCTGTGA GTTAAAAAA GATTTCCATG GTGTTACCAG GCACTGTACA CAGTCTGTGT 178260  
CCCAAGACAA GGAGGTACAG TTCCACATGC GCCCATGACT GGGTTGGGCT CTGCACTCTC 178320  
TCTATACTTT GAGAGCCTGA TTTTCTGTGA TTGGGCAGAG CTGGCCCAACC TGGTGCAATG 178380  
TCCTCCTCTG CCTTTCAAAC ATGTTTTAGT CATCAAGATC TTCAAATTTG TAACCCTTTC 178440  
CAGCTTGATC CAGCAGAATG CAGATTTGGA AAAACAGAAC GAGTTTAAAA TACATGATTC 178500  
TAAGAAACCT GGACCAGAAC TATCAAACT TGGTTTCCCA GAGAATATAG CAAATGGGCT 178560  
CATTGGCCAA TACTATGACA TTGGCTTTTG AGAAAAGAAA GGCTTTATTG CAAGGCTGGC 178620  
CAGCAAGGAG ACAGGAGTTG GGCTCAAATC TGTCTCCCCA GTTTGGGGCT TAGGGCAAGT 178680  
TTTAATTACA CAGACGCATT TCTTATGAGT AGCAGGCAGA GAGCCTCAA CTTCTTCTGC 178740  
CTAGGTACCA GCAGCTTAGA CATGATGCAA ACCTGGGAAG CACATACTGT ATTTGGAGAA 178800  
AGTGATTGGG AAGAAATGTG AGCTGAGGGG AGGGGCTCAG TGCCCCTGAG CTACACTTAG 178860  
TGATGGCAGA GGAAGGATGT CCTCCCGCAG GAGGCTGTTT CACATCTGCT CTGGTTGTAG 178920  
GGGGAGCTGG CAGGCATTAG CAGCGGCCTC TTTCCCCCAA GAGAGGCAGC CTCCTCCAAG 178980  
TTTTGGCGAC ATTATGGCCC TGCAATCATA AGGGTTTGTG AGCATAGTGC TAAGGAGGGA 179040  
AATGGAGCTG CTGTTACTAG TTCCACCCCA ACACACACAC ACACACTCAC AAGAAACCTC 179100  
ACAAGCACCG TATTGGAAGA CTTTGCCATC CAACCTGGGA TTTGACAGGC TCTAGAAGCA 179160  
GAATCATAGA CTCATGAAGT TCCCCCAAAG CAGGAATCTT CTTACAGTA ACCCCCAACC 179220  
ACCCCCCTCC ACCGCCTCCA CCGGCTGCTT CTTCTGAAC ACTGCAGTGT TTGGAAAAC 179280  
CACAACTTC CAAGCTTGCC TTTCTATTG TTGCATGGAT TGAAAGCTTG CGTTGTGTGA 179340

FIG. 6.68

AGAATGGCGC TTCCTGCTGT GCTTAGTTTT ATCTCATATA ATCTTTGCAC CATTTAATCC 179400  
TTGCACTCAC CCACTCATGC AACTGCCTTT GCAGAGACTG GAGGGGCCGC TGTAGGCTGA 179460  
CCTTTCCTTC ACTGTACCTA TTTTGTCCC TGCTTTATTC CCCTGCACCC AGGACACTGC 179520  
CTGGCACAAA GACAGGTCTT TATAAGTGTA TGCAAGTGAA TAAAGATATA TATATTATTA 179580  
TTGTTATTTT TGAGACAGTT TCACTCTGTC ACCCAGGCTG GAGTGCAGTA GCGCAATCTC 179640  
AGCTGACTGC AACCTCTGCC TCCCAGGCTC AAGTGATTCT CATGTCTCAG CCTCCTGAGT 179700  
AGCTAGGACT ACAAGCATGT GCCACCACGC CCAGCTAATT TTTGTATTTT TAGTAAGGAC 179760  
AGGGTTTCAC CATGTTGGCC AGGTTGGCCT CCAACTCCTG ACCTCAAGTC ATCCTCCTGC 179820  
CTCGACCTCC CAAAGTGCTG GGATTACAGG CATGAAACCA GCCTAGAAAT ACATACTATT 179880  
ATTTATTCTT GTTTTACAGA TAAGCAAAGT GAGTCATGGA GAATTTGGTT GAAAGTCCCA 179940  
AGGTCAGGAG TCGTGAAGCT GGGATTAAAA CCTAATCATC TGACTTTAGA GAGTAGACAC 180000  
TTGCTCCATG CATATTGCCT CCAATTCATT CATTCAAGCA CTCCCTGCTC AAGAAGTTCT 180060  
TTCTTATGTT GAGCTGAAAT CTGCAGCCCT ATGCGTTTTA CCCAGCAGTC CTGGTGCTGT 180120  
TCCCTAAAAT CACTTAGACT GTGCCTGCTC TTTCTGTGTT TACAGTGTC GCTGTAATAT 180180  
CCCCCTCTTC GGCCTAACGT TTCTGAAGTC CTTGCCACT GGGTCTCCTC TCCTCTTCCT 180240  
GTGTTCTTTC TAAGAACACC TATGCAGATA GGTGTCTTCT GTACAGGGAA GCTGTTCTCTG 180300  
AGATCCGGGC ATCGACTCTG TTAGAATAAT CTACGTATGA GTTATTTTTT TGAGAACTAT 180360  
GTGTCATTGC TGAATCATAT TAACTCTGTG GTTAACTAAA ATCTCAAGAT CTCTTTATGT 180420  
TTGTTGAGAA ACTTATTTAA CTTCTCTGGC CCTCCGTTTC CTTCACTGAG CAGTGGAGTG 180480  
ATTGATAACC TCCACCTGTG GTTGCTGAAG GTCTTGACA AGATGATATA GTTAAAGTAG 180540  
CTAGCAGTGC CCACGTACGG CGGATGCCTC ACAACGGTTT GCAGCCATCT CTCTATCTGT 180600  
GTCTTTGTCT CTCTCTACA CTGGTTTTGG CTTACTGTTA GCAGCTAGCC GAGATAAGTG 180660  
TGTTTATGGT CTTTGCATGT ATTGTTTCTG TAGCATACTG GAGGATTACA AGAGGTTGGG 180720  
GAGTGAGGGG GCGGTGAGGA GTAGACAAAG GCAGCCAACT CTTCCAAGTT TAGCTTAGAA 180780  
GGAAGGAGCG GTAAACCCTA GTTGAATGTT GGAAGTGAAG AGGTTTGTGTT TGTGTTGTT 180840  
TAAAGGATAG GGAAGATCTG TGCGTGTTTC CAGGATAAAG AAAAGGAGAG AATATGATAT 180900  
TAAAGATTCT GGAAGTGGGA GAAGGAGCAA TGAAATACAG ACTTGAAGTC AGTGGCATGG 180960  
ACAGGGTCAA GATCACAGTT AGAGGATGCA GCCTTAGAGA AAAGGAAGGG GCTCGGTTCT 181020  
CTGAGCAAGG AGGGAAAGAA GAGAGGCAGA TGCAGAGAAG TACGGCACAT CGTGCTGCTG 181080  
GTTGTAGAAA TAACCTCTGA CTTTAAATAA AGTCATCCCT CGGTATCCCT GGGGGATTAG 181140  
TTCTATGACC TCCCTCGGAT GCCAAAATTC GTGGATGCTC AAGTCCCTGA TATAAAATGG 181200  
CATAGTATTT GCATTTAACC TACACACATC CTCCATATCC TTTTTTTTTT TTTTTTTTTT 181260  
TTTTTTTTTT TTTTGTGAG ATGGAGTCTT GCTCTGTCGC CCTGGCTGGA GTACAGTGGC 181320  
TCGATCTTGG CTCACTGCAA GCTCCGCCTC CCGGGTTCAT GCCATTCTCC TGCCTCAGCC 181380  
TACAGGTGCC TGCCACCACG CCCAGCTAAT TTTTTTTT TATTTTTTAG TAGAGACAGG 181440  
GTTTCACCAT GTTAGCCAGG ATGGTCTCGA CACATCCTCC ATATACTTTA AGTAACCTCT 181500  
AGATAATCTC TAGATTACTT GTTTTGTCTT TTTTTTTTTT TTTTCTTTT GAGATGGAGT 181560  
TTCACCTTTG TCACCCAGGC TGGAGTGCAA TGGTGCAATC TCAGTTCACT GCAACCTCCG 181620  
CCTCCTGGGT TCAAGCAATT CTCCTGTCTC AGCCTCCTGT GTAGCTAGGA TTACAGGCCC 181680  
CTCCCCACCC CCACCCCCCA ACAACTGGCT AATTTTTGTA TTTTGTAGTAG AGATGGGGTG 181740  
TCACCACGTT GGCCTGGCTG GTCTTGAACCT CCTGACCTCA GGTGATCTAC CCGCTTCAGC 181800  
CTCCCAAAGT GATGGGATTA TAGGCATGAG CCACTGTGTG TGGCCTAGAT TACTTATAAT 181860  
ACCTGATAGA ATGTAAATGC TATGTAAACA GTTGTTATAC TGTATTGTTA AAAGACAGTA 181920  
ACAAGAAAAA AAATCTGTAC ATGTTCACTC CAGACAAATG GTTTTCTGTT TTTTTTTTTT 181980

FIG. 6.69

TTTTTAATA TTTTGGTCA GTGGTTGGTT GACTCCAGGA ATGCAGAACC CGCAGATATA 182040  
GAAGGTTGAT TATGCGTTCA GAGGCAGGGA ATACCATCTT GGGTTCCAGA AAGAAAATGA 182100  
TCAGCATTTT CTGTCATACT CTGGTAAAAA CAGATCTTTT GAATGGACAG GTGTATTAAA 182160  
CCCTGTGGAG CTGGCTGGGC CTGGCGGCTC ACGCCTGTAA TCCCAGCACT TTGGGAGGCT 182220  
GAGGCAGGTG GATCACGAGG TCAGGAGTTC GAGACCAGCC TGGCCAATAT GGTGAAACCC 182280  
CAACTCTACT AAAAATACAA AAATTAGCCG GGCCTGATGA CGCATGCCTG TAGTCCCAGC 182340  
TACTCGGGAG GCTGAGGCAG AAGAATCGCT TGAACCCTGG AGGTGGAGGT TGCAGTGAGC 182400  
CGAGATCAGC CCACTGCACT CCAGCCTGGG CAACAGAGTG AACTCCGT A TCTAAAAAA 182460  
AAAAACAAA ACCTGTGGAG CTGATGAAAT CCTGCAGGGA GCTTCACGGT GACAGCAAGA 182520  
GGAGAAACAC ATCCCCATAT GCCCCG CAGA GTTTGAAGTC CCGGCTGCAC CTCTCCCCAG 182580  
CAGCAGGTTG ACTCTGAAA GTTGCAGCGT TCTTACCTAC AGAGTGGGAA CAGTACTACC 182640  
CATTGCACAG AGTGGGTGCA AAGCTCTGTG ACGGAATACA TGGCAAGTGC CCACCACATT 182700  
GCCTGGGATG AGGTGGGCC TCTCTTACG TAAGAGAGCC CTACAGATAC ACTCAAAGTG 182760  
GGCACATTCC TACAGAAGGA GTGTTATTTG TGTAGAAAAG AAAACATGA AAGGCTTTTA 182820  
TTCCTATACA CAATAAAGCA CCCCTTTAAT GTCTTTTGA GGAGGATAAT ATGAAATTGA 182880  
TGAAAAGGAA CCCTGTGGTT GGATCCCTGA CAATCACATG TATCCCTTTT TCACTCTTG 182940  
AAAAAGGAGT AAAGGAATAA AATAGAAGGG GAGAGGGGGC AGAGAGACCT TCACCGCCCC 183000  
CCCCCACCC CCCATCATCC AATCTATAGT CAAACCCTCC AGACTGTGTC TCCTTGGCAT 183060  
CTCTGACACC CCCACCGCCA CCACCCAGT CAATTCCTAT CTTATCCCCC TATCCTGGAT 183120  
CTGATTCTGC TAAGTTCCTG CCACACTAAA GACAGGGTGG CTTTCTGATG ACAACATTCC 183180  
TCTGCTTAAA CCTGTCAGTA ATTCCTTGT GCTCTCAGAC GGAACAAAGT TCTGAATTC 183240  
TTCACACGGC TCTCAGCAAG GTCACAGTCA CCCTGCTAGG CCCCAGGGGC AAATCTCAAT 183300  
GGTCATCTTC TTGAAGACCT GGCTCAGTTA TTTCTTCTC ATTGAGGCTC ACGACCCAC 183360  
CTTCTTGCAT GCCTCAAACG GCCCCTTACC ATGCTCTTCT TCGCCCAT GCTCAGCACA 183420  
CCATATCATT TTAATTTATG TATTTTGCTT AATGTGGATG ATCTGTCTCC TCCTCTGCTG 183480  
TCCTCACCAG AGCATCAGTT CCTCAAACCA AGGCTCTTTG TTTGTTCTT GGATGCAAGC 183540  
TAAATGTCTG GCATGTGGCA AATGGTCATA GATACATGTC ATTGAAAGAA TGATTATCA 183600  
CCTCCCTCTT TGGCCTTGTG TGTGGTCTA CCAAATCCCA TTCCCTCCCC AGTGCCCTCC 183660  
ATTCCCCCTC CTTGGCTGAA CATTCTGAAC CACAGACAGT TCTTACCCT GAACCTTTGC 183720  
ATATTTTGT CTCTTAGCTT AGAGCGGCC CTCTCCCTCC GTCTGCTTGG CTAATTTCTA 183780  
CTTGTCTTC AGATTTTATC TTAGATGTCA TTCCCTCAAG GAATCCTTCT GTGACTCAAC 183840  
ATGGAATTAA GTTGCCTCCT TTGACCCTGA AAGCACCATG TACTCAATCT CATCTTGGCA 183900  
TGACTCACTT TGCTGTGTGG AATGTCTGCT TTCCTTGTG GTCTATTCTT TTAGACTGTA 183960  
AGATCCTAGA AAGTGGGGGC CGTGCCTTGC TCATGACTGT GTTCTAACA CCAAACACAG 184020  
TGTTCACTAG AGAGCAGCTG CTGAGTACGT TTCTGCTAAA TGACAGTTGA TGGAGGACAT 184080  
TTAGGGTTGC TTGGAGGTCA AGTCAAGGAG GCATTTAACA TTCTAGTAAA ACAAGGAAGT 184140  
AACAGGCTCC TGAACATGCC CACAATGAAC CAGATGCAAA CCTTTCCCT TGGCAGGATT 184200  
CTTTGCCCAT AAAGTGGAGC ACGAAAGCAG GACCCAGAAT GGGAGGAGCT TCCAGAGGAC 184260  
CGGAACACTT GCCTTTGAGC GGGTCTACAC TGCCAAGTGA GTCCTAACC TGATGTTGCT 184320  
AATAAGTGGG GGCATGGGCA GGGGGGCTC CTTCTAGGAG TGATGACCAC CCTTAATACC 184380  
ACATGTCTGT CTGAGCCAAG TTTCTGAGCG CCAGGGAGGT GAGGAAGGTT GGACTTCACC 184440  
AGAGAGGCTT TGTGGACACC CTTTATCATC TTAGTGAGTG CTAGTGTCAA AACAAAGGGA 184500  
GTGGGGATAT GGGGCACATT GGTGGAGGGA GGTGTGATCT CTGCAGCTC AGAAAGATCT 184560  
GAAAGAGTCA TTTGGTTAGA GAAGTTGACC TATTCCTGT GGGGTTAGAC CAGGGTTGCT 184620

FIG. 6.70



ACTGTGAACA CCAGCCATGA CTCACCAGTC ACCTTCAGAA GCCACAGGCA GGACATGCTG 184680  
ACGACAGCCT TCAACTCACC CACCCCTTGC TCCCTGCGG GTGGAAGTCT GGAGGTGACA 184740  
CCACTGCATT TTCTAACACG GGGGCTCCTT GAGCAACTAG AACAGAACA GAAAGAATGG 184800  
GGACATTAGC AGGTGCTTTC CCCCTCTCTC ATTCTTTTCT TTGAATAAAA AGGTTGTTTG 184860  
AAAACACCTG AGCGGCTCCT AAAGATGGGT GCAATCTATT CGGGATGCAA ATCCGAATGA 184920  
ATGTTATTCA AATGCTCCTC TCTTCTTTAT GCAGAGTGTA TTTCAAGGCT CAGCCAGTGG 184980  
CAGGCATGCT GGGGACTATG GACTACGGAC TAGGGGCTG TCACAGAGGA AGGCCTCATG 185040  
CTAGAGAGCT AAGGGAGGAG CTGGCCTTCA GTTCCATCCC AGGAGCAACT TTGATGTTCC 185100  
CAGAGATCCT TCCAAAGGGG GAGTCATGGT CACCCAAGAA AAATGTATTC AGAATGCCAA 185160  
GAATGGTGCA AACTCAGGAC AAAGATTCAC ACTGCAGGGT TGGAGTCCCT GGGCTTGCTG 185220  
CTGGCACCAT GGGAGGGAGG GTCCCTTCA GGGGTAACCGT TGGTTTCCTG TGAATTAAAC 185280  
TGGCTTCAAG GGATCTCGAC TGAACAGGCC TATATCACAC TCACTGATAT ACTCTCTCTT 185340  
CAGTCCTTCT CCTCATCTAG GTATTTTAA TTGTTTCAGT GAGGTGTAGG CATGAGGGGA 185400  
TTGGAGGGGG CATCTCCTCC ATTGCAGTTT TTCATTGGCT GCTTTGCTCC CTCAGCTCCG 185460  
AAATCGCTGG GCCACTCTCG AACGCATTAG TACGGTAGTC ACAGGTTGAT TGCCTGGCCC 185520  
CTTGCCCTCT GTGGGCATTT TCCCTTTCAG ACAGCCCCTG AGTACTCACA GTGCTGCTAC 185580  
AGTGGGCCAC CTAGATCTCC CTCTTTCTCC ATGCTCCAC GTGCTCTGGG CTCCACTCCC 185640  
TTCTCCCAAG CACTTCTGTC CAGGGCTATT CCAGCAGTCT GACCTCAAGG AAATCCTTTG 185700  
CTAAACTGAT TATAGAGAGG TTTCTATTTT AACATTTAGG TCTTCCATGT ATTAATTCTC 185760  
AGAATCAATT TAAGATGTTT AAAGGTGTGA TTTAAGACAT TTTAAACCA TTTGGAGGAG 185820  
AGTACAGAAA TTATGTCACT TGCTGTCAGC CTCTTTGCAC CATCTGCAGA GAAAGATACT 185880  
AGAGTCCCGC CTTGGACACA TCCACATGCA AGAGGTGCAA AGAAGGTGTC TTTGATGAGG 185940  
CAAGGTCAAA ACTTCTCCCC AGACGAAATC CAAAGAAAGC ATTCCTACTA TGCTATATCA 186000  
GTTTGGAAG AAAAATTCT GCCAGGTGAC TGCATTCTCA CTGGTCACAT TGTGTTCTTA 186060  
TGGACTCCTC AGCTCAACCA ATTTGGAGAA GTTATGGTGC AATTTCACCA TATCTGGTTA 186120  
GAAGTTAAGT TTCCAATTTG CTGGCAATGA AGAAGAAATG GAGCAGGCCA GGCTGTGTAG 186180  
TTTCTGCCAC GTGCCCCCGG GAGTGAACAG CTCTGTTTGT AAGAAGCCAT GGTGCTTAGA 186240  
CCTGGGCTCG CTAGTTGCCA GCCTCCAAAT TGCAGAAGTG CCCTTTGGTT GGTGGCTATG 186300  
CTGTGTCACT TGGGAAGGTC GTTTGGAAGT TCCACAGTCG TTGTGGGGTG CCAGAGATTA 186360  
AAAAGCGTAA GAGGAGAGTG GAAAGTGATT GTTGCTGCTT GGGCATCCCC ACCGTGTGGG 186420  
TGCTGCAGCC CAGCTCTCAA AACCCATGGG TCTGTACACT CAACCTCCAT GAGAGGGAAG 186480  
GAGAAGGATG AGGGAGGGGA GAGATAGCCA TGGAAAGGTA GGAACCTAAGC AGGCAGGGTG 186540  
GAGAGTTTTT TGTAAGACAA AAAGTGTCTG GACACTGCTG CGGTTCTGTT ACAAAGACCA 186600  
CTTCTCCCT GGGCCAGCAA CATATCTGTG TGCCTGTCTG GGTTGTAAAA AGGGTCAAAG 186660  
ATCAATGCAG CAGGCAGCTA CATGCTGGCA AAAGCCAGAG GCAGCTGGTC TGTTCCTG 186720  
TGCCAGGAAA CCACTGGGAA TGGGGTTGTG TGTTATTCTA GGAGAAAGTC GTCCCAGCAG 186780  
CAGCTTCTCC AGGGGCATCC AAGAGCACTG AAAAGGGTTG CAAGATGACC CATGAGGCTG 186840  
CAGGAAGAAA AGAACATGCA TTTAATCTTG CTATCTGAAA AGTAAGACAT GAAGCTTTCC 186900  
TCATTTTAA TATACACATG GACAGTAGTA TGTGTATATA GTTTATATGC AAATATACTT 186960  
GTTATAAGGT TGCATGCTCA AAATTTTGG TTCATGGGGT GTGGATCAT AAATGTTTAG 187020  
GGACCATGGC TATCAAGGAA AACAGCATG AAGGATAAAT GATACTGGTG GATTAAAAAG 187080  
ACAGATGCAT GTATTTT TAG CATAAAACAC AACTGCTGAC TGATACAGAT AGCTCAAGAT 187140  
TCTGGGGCAG CTGCTGAACA GATACACTAG CCAGTGTGGC TCATCGGCTC AGACTTGGCC 187200  
TTAATTAATG GGCTGTCCCT CCACCCATCT CCCATGAGGG CAGAGCTGAG CCAGGGTTTG 187260

FIG. 6.71

AGAGCTAAAA GGAATTGGAC CTGGACTCTG TTCACGTGTA TATTTTAATT CTAATTAATT 187320  
CATTCTTTTG AAAGACAGAG TCACACTCTG TTGCCTAGGC TGGAGTGCAG TGGCACGATC 187380  
TTGGCTCACT GCAACCTCGG CCTCCCAGGT TCAAGTTATT CTCCTGCTTC AGCCTCCTGA 187440  
GTAGCTGGGA TTATAGGCAC ATGCCCCCAT GCCTGACTAA TTTTGTATT TTTAGTAGAG 187500  
ACGGGGTTTC ACCATGTCAG GCTGGTCTTG AACTCCTGAC CTCAGGTTAT CCACCCGCCT 187560  
TGGCCCCCTCA AAGTGTGGA ATTACAGGTG TGAGCCACCG TGCCTGGCCT GTTCACATGT 187620  
ATAAACACA GTTTAATGTC CTATTCCCAG CCAATGAGCA TGGCTAGAGC AGCCTTGGTC 187680  
AAAGTTTGGT TTTTGGAGAA AAATCCTTGT TAGCTGACCT AAGATTCCTC TTTGTGAGTG 187740  
TAAGTAAGCA CAGGTTGCAG AGAGGAGAAG GGTCTCTGGA GAGGTGTAAT TTTCTAAATG 187800  
GATTACAAGT TCATGGACTT TTAACAGGTG TTACAGGGGA TAACAAGTTC TTTATAGACA 187860  
GACTTTTGAG GACGTTTAAG GGTATTCTGA TTCTTGGTTT TCTAAGAGGG GAATGTATTA 187920  
TTTAACTACA GACACCCCTA CCGCCCACTT TTTGCAGAGT GTATCAAAC ATGTTTTTGG 187980  
AATACCACCC TCATGTCGCT TCTCCCTGCA TCTCTATCT CTGGGTGTCC ATTCTAGACT 188040  
CACTTTCTTT CTGTTTTTTA TTTTATTTT TTTTGTAGAT GGAGCTTCAC TCTGTCACCA 188100  
GGCTGGAGTG CAGTGGTGCA ATCTTGGCTG ACTGCAACCT CTGCCTTCCG GGCTTAAGCA 188160  
ATTTTGTGC CTCAGCCTCC TGAGTAGCTG GGATTACAGC ATGCACCACC ATGTCCGGCT 188220  
AATTTTGTGA TCTTTAGTAG AGACAGGGT TCACTATGCT GGCCAGCCTG GTCTCAAAC 188280  
CCTTACCTCA GGTGATCTGC CCGCCTCGGC CTCCCAGAGT GCTCAGATTA CAGACGTGAG 188340  
CCACTGGTGC CTGGCCTAGA CTCACCTTCA AGTGGCATAG ACTTGTAATA TTTTAAAG 188400  
GTGATAGGTC TACAATGATC CTGTCAATTA GTATTGACAC TATTATTAAT AAAGTGTAT 188460  
TAATTATATT TACTTACTTT AAATTAATCC AAATAATTA ACGGAACACT AAAGAGTTTC 188520  
TATGTTTTAT TCCCAGAGGT GGAGAAAAAT GAAAGGGAAT ATAGCAACGA ATTCTTTTCT 188580  
CCATAAAAC ATGAATAGTG CAGCACATCA AGTTGAACAT ACCACAGCAA ATTGTTGCAA 188640  
GATCTGCTGA GTAGCTCCTA TTTAGACCTC AAGGAATGAG ACTCAAAATG GGTTTCATCAG 188700  
TTCTGTTTTG CAGAAAAAT AGCGCAAAAT TTCTCAAAG AAAATCCAGA ATAATAATAA 188760  
TTTGTCATA GGAAAGACAT TTCCACTGGG GGTTAAGAAG GAAGACATTG GAACAATGAT 188820  
AGCCACCACT TATTGAATGC TTAGTGAG CCAGGTGGCA CTTCACCTTG TTTCACTCTC 188880  
ACAACAGTCT AGGGAAGTAA TTAGTAATGT CTCCATCCAC CTCTGTAGA TGAGCAAAC 188940  
GAGGCTCATT GAGGCTAGGA AATGCACCCA CACTCACATA GCCCATAAGA GGCAGCCATG 189000  
GCATTGGGCC CAGACCATGT GAACTTCAA GACTACACGA GCAGCCACTG GGCAGCTGTC 189060  
ATGGCTAAAG CCACTTGAAT TCAGCCCAGC AGCAACCCCC TCTCCAGGAG GGGCACATAA 189120  
GCTTGACGCT TTGGGTAGAA GCTGCACTTG AAGTCCTGGA TGGCGAGAGG GACTGGCTTG 189180  
AGCCAGAGCC AGGAACAAGG CTCTGAGAAT ATTCTGGAAA TCCACAGGAG GAACCCATTT 189240  
TCTTACAGCT GGGAGAATTT CATTCAACTC CAGGCTGACC ATGTTTTATT AGGAACGAAG 189300  
GTGACTTGAA CTAATAGTCA GGAATGGTTG AATACGGACC CAATGTCAA TCACTAGGCA 189360  
GTTACATTT CTAATGAGCA AATCCCTTAG ACAATTAAGA ATTTTTTCC TTTTGCATAA 189420  
CCCAGACAAA ATCGCTACTT AAAACAAAC CAAAGACCCG AAACATGAGA AAGAGAAGGA 189480  
AGCAGGGGAA ATCTTTGGTA CTAATAAGTT TTTAAACAAT AAGAGCACCA GATATTTTAC 189540  
CCCATCAGAC ACAGAATGTT ATTGGAATAA CAAAAAAGG AATTTTTTCT CTAAGTTTCT 189600  
TGAAGTGGAA AATGAATCAT ATTTTCTCAG TCCTGAGGCT GCAATTTTGT GCCTCTAGTA 189660  
ACATATAAGA ATAGATGTGA TGCCAGTGCC CAGTAGCTGC TGCAATTGTT ACTTGGGGAC 189720  
CTGTTTATTC ACTAAGCACT TCACCCCACT GATAAATTG TAGGGGCCCTC CTGCCCTTTG 189780  
GAGCTCCTAC CGTGTCCATT AGATCAGTGG AAATCTGGG ATTCAGAGCA CTTTGCAAGG 189840  
TCAGCAGGGG TCTGCTCTTT CTGTCCTGTT CCTGGTTTTT GGTTGTGCCT GGATTCCAGG 189900

FIG. 6.72

GTAGGTTTCT CATCTGTTAC CTTTCATAGAC TTCTCCAGAA AAGGATCTTT TGACCATCAG 189960  
AGGACCACGA AGATTCCATT GGTGAGGCGC AGATAACCTG ATCTCTCTGG GTTCTCTGCA 190020  
GGGCACAGAT GAAGGGCTGG CCATTCCCAA GTTCTCAGTG GTACCACTGA GGCATGAGAC 190080  
CCTAATGGTT TGCATGAGCA GTTTGAAAAT TGCATCTTTG TTTTACCTA TATAATCACA 190140  
TGAAACCCGT GGTTCTCAAA CGTCAGCAGG CATCAGCATC ACATGGAGGG CTGTGTAATA 190200  
CAGATTTCTG GGCCCCAACA CAGAGTTTAA AATTCTGAAG GCCTGAGGTG GGTGTGAACA 190260  
TTTGCAATTC TAACATGTTT TCGATGCTGC TGCCGCCTCT GGTCCCGAGA GCATGCCTGG 190320  
AGAACTGCCA CCTTCGACCA TGGACTGTGA GAATTCACAT GGACCTCAGA ATTATAATCA 190380  
GTCTCTCAGT TTTACAGATA AGGAACTAA ATCCAGAGAG ATTGTTTTGC CAATGGTGAA 190440  
CAGCTGGTTA AAGTCAGGAT GGAGACTTTA ATCCTAGTCA AGTGACCTTT CCTCTGTATT 190500  
TATTTCCCTC CCTTTTATG CCTCTCAAGT CTAGTTACAC TGTTTTTCAT GGATGGGCAT 190560  
ATTTATTGTC CTGATCTGGA CTGCAGACTT CTCAGGAGGA CACCTATGAT TTAATTTAGT 190620  
ATAGTTGAAG AGTTAACAGA CATGGCTTTG GAGACAGACT GATTATGGTG TGAATCCCGG 190680  
CTTTGCCACT CCCTAGCTGG ATGACCCTGA GCAAGTTATT CAGCTTCTCC AAGCCTGAGT 190740  
TCCTTATTGG AAACATGAGA GCAATTGTGA TAGGCAGAAT AATGGCCCCC TCACCAATCA 190800  
TGCCACATC CTAATCCTAG GAACCTGTGA ATATGTTATG TTACATGGCA AGGGGAAATT 190860  
CAGGCAGCTA GCCAGTTGGC CTTAAAATAA AGAGATTATC CTGGATGATC TGGGTAGGAC 190920  
CTGATGTAAC CACAAGGGTC TTTTAAATGT GGAAGAAGGA GGCATAAGAG TAGATGTCAG 190980  
AGTCATTCAA AATAAGAAAG ATTTGATGGG CCATCCCTGA CTTTCAGGTT GGAAGGAGGT 191040  
TCTGAGTCAA GGAATACAGG TGACCTCTAG AAGCTGGAGA AGGCAAGGAA ATGGTTTCTC 191100  
CCCTAGAAGT TCCAGAAGGA TTGCAGCCCT GCTAATATCT TGACTTTATA GCCCTTTGAG 191160  
ATTTATTTTG GATTTCTGAC ATCCTGAACC ATAGTAAAAG GGTGTTTTTT GTTTTTTTGA 191220  
GACAGAGTCT TGCTCTGTTG CCTGGGCTGG AGTGCAGTGG TGTGATCTTG GCTCGCTGCA 191280  
ACCTCCGCCT CCCAGGTTCA AGTGATTCTC CTGCCTCAGC CTCCTGAGTA GCTGGGATTA 191340  
CAGGTGCTTG CCACCACACC TGGCTATTTT TTGTGTTTTT AGTAGAGACA GGGTTTCACC 191400  
ATGTTGGCCA GGCTGGTCTT GAACTCCTGA CTTGTGATC TGCCTGCCTC AGCCTCCCAA 191460  
ATTGCTGGGA TTACAAGGCG TGTTGTTTTA AGCCACTCAG TTTGTGGCCA CTTGTTACAG 191520  
CAGCAAGAGG AAACATACAT AGTTATCATG TGAACATCACA GGAATATGGT GAGTTAAAAA 191580  
GAGAGGAAGG GTGCAAAACA TCCACGGTAG AGTGAGAACT CTCCAGGGAG TGAGGACTGT 191640  
GCCCAGCATA CAGTGATCAC CCTCTTAGTA AGCTAAGTTT CTGAGCACCA GCTTTTTTGA 191700  
GTTGACTTTG TTGTCTTTAA CATTTGAAGA TCACCCTTCT TTGCTCAGCC TGGCTTGCA 191760  
ACCTGGGCTG ATTTGTGGAT CTGATAGAAA AGTTTCCTTA GTTGGGCTCT TCTCCCGAC 191820  
CACCCCATG CCAGTGTGGC CACATCCTCT GTCTGCATTG CTCACTCTTC AATTCCAAGA 191880  
AGCGCAGGGG CACCGCCAGG AACAGGAACC CTGCCAGAGG AATACATCAA GAAACCAAGT 191940  
CTCCCTTACG CATCACCGTA GGAACAGAGT TAATGGATTA TGAACATGTG TTTGCTTTAT 192000  
ACCATGTTT GTTTCCAGG TGGCAGCTGG CTGCCCCATC TTATTGGGTA GATGTAAGTG 192060  
GAATTACGAA TGGGATTTAT GTTTCATGCA CGATGGTGAT TATTAACCTC AACTTTCAGG 192120  
TAATTTTCAG ACCACATTGC ACTAAGTTGG TCTCTGATTG TTTTCTCCT TGTTTGTTA 192180  
TTCTGCAGCC AGAACTGTGT AGATGCGTAC CCCACTTCC TCGCTGTGCT CTGGTCTGCG 192240  
GGGCTACTTT GCAGCCAAGG TAACTCAGAC TTCCCTTTGT TCATTCTCCT TCTATAAAGT 192300  
GCATCTCAAG GAGGTTCAAA GGGCAGGCTT TTTGTTGAAA GGACTTTGCC TGACCTCTGG 192360  
CTCCCATCTG TGAAGCCCTG GAGAGGTGAG AGCCCTCGGG AGGCCGTGTT TCAGGCATGC 192420  
TCTGCACCCG TGCAGAGCGC GTGTGATAAT GCATTGCTAA TGCTTGCTCC CTGGTGGCTG 192480  
GCTGAGAGCT GCTGTGCTGA CAAGGGTGGT TTAAGGCTAA ATGTGACTCA GAATCCTTAA 192540

FIG. 6.73

GCAGTGTTAG TTCAGATACA AGGGCATTAT AAATGAGAGT GCCTGAGGGA TCTATTTTGG 192600  
GACCGCTGTC ACTTGGCTCT TCTGCTAATA AGCTCCAGT GTGGTGGCCC TCCTTCAGGC 192660  
ATGTTTCCAC TGAGCCACGG GCTGGATGCC ACATCCCCGG CCTTCCCACA GTTATCAGCA 192720  
GCCCACAGGC TTGACTTGAG CAAGTTGGAA AGACAAATCA ACTTCCAGAG TTGATTAAAC 192780  
ATTGAGTGGA AATCAGTCAT ACTTTTGGTC CCCTTTCGGG GCCACGCCTG GCACTGTGCC 192840  
TGGTGGCAGA TCGGCATGAA CTGGCCAGCT TCTGTGGCCC TGGAGGGCAC AGGCAGAAAAG 192900  
GCCACACTCA GTCCCATGAT GAACTGTTTA AGACTTATTG TTGTCTCCCC GCTCTGTAAA 192960  
GTAGATAGAG TGGATTTTAT GTCCCTTATT ACCTTTCAGG ATACTTTGAC TCAGGGAGAT 193020  
AAAGTAACTT GGGTACAGCT ACTCAGCTGG TGAAGAACAC AGGCAGAATG AGTGCCTGGG 193080  
TCTTTTGA CT TAAAATTCTG GATTTTTCAC AAAGATCCTC TTACTTTATT CATTACATA 193140  
ATAAATATAT ATTGAAGAGC TACTCTGTGC CAAGCCCTGT GCCTAGATAT ACAGTGATAA 193200  
ATAAAGAGTA GCTTCTAGAG GTCACCTGGC GGTGAGGCAC AGGCCAGCTG GCAAGATGGA 193260  
CCACAGAACT CAGTGAATGA AGACAATGAC AAGGGTGGGA AGCGCCATAT GGGAAGAGAA 193320  
CCAAGTTCAG TGATAGAGAG CAGAGGTGAG GCGGCAGCAG AAACCACTTA AGGGACACCA 193380  
CGTGGCACTC CTTCTGTGCT GAGAAGGCTG TCAGTAAGCT CACCATTAT TTCCTATTTT 193440  
CTCTCCTGAG TTAATAGGA AACATGTCTC GCATTACTTG AAAAATCAAG TCAAATATG 193500  
CTCTTACTAG GAGTTATGGT TCTTTTATG TCTTAGATGA TGCTTGATCT AGATGAATGC 193560  
GGACTTGCTG TAGCTAGATA AATACAATGG GAGTTTGAAG GTGTTTCGTA GCCCTGGAAA 193620  
TAGGTATTTT CTGTCAAAC AAGCTTTGTC ATTGCCAGCA GACAAAAGCA TCAGTAACCT 193680  
TGTTGATAA TCGTCATTTT TTAGGAATAA AGTAGACTGT AGAATTTTTT TTAGCAGAAA 193740  
GGAAACCCAA AGATAATTCT AGTGCAAATC CCTCACTTTA TAGAGCAGAA GCTCAAGTCC 193800  
CAGAGGAACA AGTGGCTTGA ACGAACATCA GAATTTTAGG GGCTGGATT GTACCCTCCT 193860  
GGTGCCAGCA GCCCACTTCC CTGCAGGAGG CACTCACCTT CTTGCACAG GGGTATGAGT 193920  
GTGGCCATTT TCCACCCATA ATCTCTGTTA GCTCATGTTT AATTGGGTTT CCATTGAAAG 193980  
AAAAATGGAC CAGTAAGTTG GAGCAGAATC ATTCAGATGG TATAACATAA GGAAAACTT 194040  
TGCCCAAGGC AAATCGTGAT TGTGACAGCT TTGTGATTTT TAGAGAATAG CATGGGCCAG 194100  
GCACAGTGGC TCATGCCTGT AATCCCAGCA CTTTGGGAGG CCGAGGCAGG CAGGTCATT 194160  
GAGGTTGGGA GTTCGACAAC AGCCTGACCA ACATGGAGAA ACCCTGTCTC TACTAAAAAT 194220  
ACAAAATTAG CTGGGCGTGG TGGTGCATGC CTGTAATGCC AGCTACTCGG GAGGCTGAGG 194280  
CAGGAGAATC ACTTAACTT GGGAGGCGGA GGTGCGGTG AACCAAGATA GCACCATTGC 194340  
ACTCCAGCCT GGGCAACAAG AGTGAACTC CGTCTCAAAA AGAGTTCACA GTTTCTCTTT 194400  
TGCTTTGATT TTCTTATCTG CCGGATAACA ATAGTATTTT GGAAGGCAGG AGGAATTGTG 194460  
GAAAGAAATG GGTTTTGGG AGTGGCTGAT TGGAGGCAAA TCCAAGGACA CTCATTGCTG 194520  
GTGTGTGACT CCAGGCAGTT ACTCAGCTTT TCCAAGCCTC AGTTTCCTTA TTGTAAACA 194580  
GGACCATGGT CTAGCTAGTA GCATTCCTAT GGTGAGTGAA ATAATATGTA TAAAGCTCCT 194640  
GACACAGTGC TTGGCATATA TCAGATTGAG CCATGTAAAA CTGCCAATAT CTGGCTATTT 194700  
ATGACCTACA AAAATAGCAT TTCATATGAT TCCACCTAAC ATCTGAAGCG CAATAAATGT 194760  
TATTATTGAT AATGCAGGTG GTGGTGATAA AGTTTTGAAA TCAGAAAGAC CTGGCTTCAA 194820  
ATTCCACGCC TTCCTGGCC TGACTTATTT TCATTCTTT GACAAATATT ATTTTGAACA 194880  
CCCCATGTG CCAGGCACTA TGCCAGGCTC AGAGATGATC TAGGAAAAAG ACAGATGTCC 194940  
TCATCTGTCT TAGGCTCTTG TGGCCTAAGC CTAAATTTCC TCGTCTGTCA AATGGTGACA 195000  
GTAACACACT CTTTACCAGA GAGCTGGGAG GATTGGAGAC TCAAGTTCCC AAAACGCCAG 195060  
GAGCACTGCG GCAGGTGAAA AGTATTCCCT CAATGGCGGA AGTGTTTAAA TTGCTTTTAT 195120  
ATCTGTAGCT CTAGATAACA CTAGTTCCAG CTTAGTTAAC TCCCAGCTCC AAGCCTTCAG 195180

FIG. 6.74

GACTTCATAG AGTTATTGGG GTGCTGCTCT TGGCAGTTTC CCAAAAAGCT AGAATGCAGA 195240  
GGGAATCTCC TTCCCAAAAA GCTAGAATGC AGAGGGAATC TCCTTCCCAA AAGGCTAGAA 195300  
CGCAGAGGGA ATCTCCTTCC CAAAAGGCTA GAACGCAGAG GGAATCTCCT TCCCAAAAGG 195360  
CTAGAATGCA GAGGGAATGT CTTTCTCTTC TAAATGGTAG CTGTTAGTTC AAGAAAGGTT 195420  
AAACATTGTG CTGTGGGGAG GCTCAGGGGT GAAGGGTGTA CTTTAAAGAG AACCAGTTTC 195480  
AGAGCTGGGT TTGGGGTTTA AGCCCTACCC TCTGCCCCCT TTTACGAGCT GACAGCCTTA 195540  
TGCAAGCCTG GTTGACCACC TGAACCCACG TTTCCACATC TGGAAATAGA AATGTGGGTA 195600  
CTAGTTATGT TGAAAGGACT CAGGTTAGAT GATAGATATG CAAATACCTT GGAAACCAGG 195660  
AGTGTCAGT CTTTTGGGTT CCCTGAGCCA CACTGGAAGA AGAGTTGTCT TGGGCCACAC 195720  
ATAGAATACA CTAACCCTAT CAATAGCTGA TGAGCTAAAG AAAAAACGTT GCAAAAAAAA 195780  
TCTCATATTT TTAAGAAAGT TTATGAATTT GTGTTGGGCT GTATTCAAAG CCATCCTGGG 195840  
CCACGTGCGA CCCGCAGGCT CCGGGTTGGA CAAGTTTGTT GTAAACAATG CCATGATGCC 195900  
GGCATAAGGT CGTTACCAGT ATTAGGAAGG TTCTCAGGTT TCCTCTAGCC CTTGGGCTCT 195960  
TTTCTGAAG TGCGTGTGTC TTCTGCTAGA TTTTGTGACC AATGTTGATT GCCTAATTGG 196020  
GCTAACAGCA TGTTTTGGTG GCTACGAAAC TGACACAGGT GTTTTCATTT CTCCACTTAG 196080  
TTCTGCTGC GTTTGCTGGA CTGATGTACT TGTGTGAG GCAAAAGTAC TTTGTGCGTT 196140  
ACCTAGGAGA GAGAACGCAG AGGTAGGTAA CTGGGACTAC TAAAGAACTG TGGAGCGATT 196200  
CCTGATTTTT GAGCAGGAAG AGTGACAATT CAAAACAGTA TTTGACTAGA TTCACGGCTC 196260  
CGTAGCATCC CCTTGGGTGG GAGGGGGAAG GCTGACTAGG ACCTCTGATT CTTCTTTCCC 196320  
TGAGCTTTGA AGGCTCTGAA AATACAGCTG GGGGGACTTG CCCAGTTTTC TTATTAAGCA 196380  
ATTCTCCGC ATGGTGCTGG CTTTCAAAGG GTGCTTCAGT GCTGTTTGCT GCACGTGCCT 196440  
TGCAGCCCCA CACCCTGCAC TCCCGCCCTG CAGAGTCTGG CGCTGGAATG ACATTTTAGG 196500  
TCTGGGTTCC CAGGCCTCCT GAGAGTGAAA TGTTTCATTG TTTGTCTAGA GAAATGAGAA 196560  
CTAAAGCTTG CACCTTGTGA TAAGTTGTCC TGAGGAACAT ATCTTTCAGG GACCAGAAGA 196620  
AAGAATGTTG GGAAAATAAG ATGCAGTAAG ATGCAGACAT GACAGCAGGG TGCAGCGGCT 196680  
CACGCCTATA ATCCCAGCAC TTTGGGAGGC TGAGGTGGGT GGATCACCTG AGGTCAGGAG 196740  
TTTGAGACCA GCCTGGCCAA CATGGTGAAA CCCCCTCTCT ACTAAAAAAT ATACAAAACA 196800  
TTAGCCAGGC ATGGTGGTGG GCGCCTGTAA TCCAGCTAC TCCATAGGCT GAGGCTGGAG 196860  
AATCGCTTGA ACCCAGGAGG CAGAGGTTGC AGTGAGCCGA GATTGCGCCA CTGCACTCCA 196920  
GCCTGGGCAA CAAAAGCAAA ACTCCATCTC AAAAAAAAAA AAAAAAAAAA AAAAAAAGAT 196980  
GCAGACACGA GACTGTGAAA CTGACTAGCA TCACCATTGC ATTGTTTATA GATGTTGCCA 197040  
GACAGAAAGC CCCAAAGCAG CACAGTACCT TCCTGACATC TGGACTAGGA AATCTAGATT 197100  
TTAGTAAAAT ACATGCTAAT ACTTACAGAA GAAATGTCGG CGTTAGAGTA TGCCGTCAGT 197160  
TCCTTAGAGA TTGCAATTCC TAATGCACTA GSTATGTTTC AGGTGCCAGG AACACGTTCT 197220  
GTGAGGCTGC TGCCCCAGGT GCTGACCCCA GCCTTCCACA CCATTTCTCT TCCTTGTTGT 197280  
CACAGCCGCT CTGTCTTTTA CAATAGCACC CCTCTCTAGT GGCTAATGGG CTCTATGATT 197340  
AGATAGCATC CTTAGTAGT GATAAAGGCA GTGACATCCT AGGGAGGTCA GCGGGTGAAA 197400  
GCGCTATATC TGAAAAACCT GAGAGCCTGT GAAGCTCAAG GACTTGACGG GGTTAGACCG 197460  
TGAGCCGGGC TGCAGCTGGA AAAAGAATGA CTGTTCTTTC AGCAGATCCT TCCCTGTGCC 197520  
ATCTCTTCT TCATTCCTCT CTAGTGGCAT TCTTATTTAT CCTCTAAAC CACAATTCCA 197580  
TTATCTCTCC TATTCTTATC AACACTGCCC TAAATGATAT TCTTTATTCT CTTTGGCCCT 197640  
GGAAAACCTC TATCATGCCT TTTCCCATGT GATTACCTCG TTAAGAGTGG GGGTGGAAATG 197700  
TCTAGCAATG AAATAAGAGG GTCTTCTCTT TTGCCTGGCT CCCTATGCAG CCCTATCTTA 197760  
CCCCCTGCAA AGTCCCAGGG ATGTGGCTCA GTCAGTGCTC CTCTCTTCAT CTGTACCAC 197820

FIG. 6.75

TTGCTTGAGA TCCTACAGCT GCTTTAATTC CGAGACCATC TGCAGAACAT GACAAAATTT 197880  
GTCCACCTAC CCACATGTCC TTTAACTTT AAAGGCTTTA CTAAGTATT CCTATTAGGG 197940  
AATGAACAGA GGTGGCAAAA ATAAACAATA GGAGATTGAT TTACAAGAAA TCTTTAAAT 198000  
AGTAGATTTC TTCGGACCTC ATTGAAATAT AAATGGCCTG CCTTCTTGTC TCCCTCCCTG 198060  
GTCTCCCTCT TTAGGTGATA AGAAGAAGAT CCTGCCAGCC CCATAACCCG CCATCTGCGC 198120  
GGGTTCTAGA CCCCCTTCTC CTCCCCTCTG GCCGTGGTAG GCATTACTGA TGAATCATGG 198180  
TGCTCTTTCT TCCAGAGACC AAACCTGGCC TCGGAATCCT TCTTAACACA GATACTGCTT 198240  
AACACAACCA CTCTGAGCAG CTGTCATAAG TAGAAGTAAT AGATACTAGA AGAAATGTCT 198300  
AAGCCTAATC TAGACCAAAA TACGGCCTGA TATAGATGCA AGCCAGAGGG GCTTTATGGT 198360  
TAAATGCAAG GAGATTTTCA ACCCTGCCGT CTAGAAGCTA CTTGCTGAGA TCTTCTTCAG 198420  
TTGGGCCCCAT CTCCTCCCCA GGCTCTCTT CTGTTCTGG GCTATGTCAC ACTTGGAATC 198480  
TGCAGACACC TAATGCTCTT GGGACCTGCT TTAGTTCTTG ACCTACCAA CCGAGGAGGA 198540  
ATTGCTAGAT GAGATCCTTC CCCCAGGAAT TCTCTCTTGA ACCCCAGATG GTCCGTTGCC 198600  
CCTTTCCAGA AGTTGCTCCA GCCCTGTCCG CTTAGGAAGT TCAGTGTCTC CTTGATCCA 198660  
GTGGGTAGGG AAGACATTCC ATAATGAATG CCCCAGTCTG AGCTTCTTCC TTCAGGCTTC 198720  
AGGCTGCCCT GCGAGGATTT TGCAGCTCCC TTTTAAATGC CCTCTAGAAG TTTCTGGCTC 198780  
TTATTTTCAG CCCTTCATCC TACTCTCTCT GACCCCTTCC TCTATCCTGT TTAGTTCACC 198840  
TGAGCAGTT ACTACCCAGC AGTGAAGGAT GAATCTTGGT TCGTTTCTT TTCTCTTCTT 198900  
TTCTTTTTTC TCTTCTCTT TCCCCTTCCC TTCCCTTCCC TCCCTTCACA TCACCTCATC 198960  
TCACCTCACC TTACATAGTC TTGCTCTGTC ACCCAAAGT GAGTGCAGTG GCCTGATCTT 199020  
GGCTCACTGC AACCTCCACC TCTTCCCAGG TTCAAGTGAT TCTTATACCT CAGCCTCTTG 199080  
AGTAGCTGAG ACTACAGGTG TGCATACCA CACCCAGCTA ATTTTTTGTA TTTTATAGTAG 199140  
AGATAGGGTT TAGCTATGTT GGCCAGGCTG GTCTCGAACT GCTGAACTCA AGCAATCTGC 199200  
CATCCCCGGC CTCCCAAAGT ACTGGGAGTA TAGGCATAAG CCACCCATGA TGCCAGCCT 199260  
GAATCTTGGT TTCTTCCCCA TTCATTTAAG CTATTACCTG GGCCTGAACT CAATGGCACC 199320  
TGGCACCAAC TGGCAACTGA CTCTTGGTCT TTTATTACCT ACCTTCCCTA GCAGGCACTG 199380  
GGTTGCTCCC TCTTCTATC CCATGGAGTC CTGTCCTCTG TTGGGGCTCC TACTGATCCT 199440  
CTTGGAATA TGAAGTTCTC AGCTCAATGG TGGGTGGGCA ATGACTGCCA ACTCTTGAGG 199500  
CCAATGAACT CAGGTTACCC CACTCCTCCT CCTCCTGAGT TGCTCACTCA CTCCTCATTC 199560  
ACTCAACATT GATTCACTAG ATATTGCTA CCTGCTCTGT GCCAGGTACC AGGTCAGTTG 199620  
CTGAAGGAGT AACAGTGAAC ATGACGGAGT CTTTGTCCCC AAGGAGACCC AAGGTGTCTC 199680  
CTAGAGCCAG GGGCACATTG CAAGACCAAA TATATTCAAC TTACCAAAAT AATCATAGAC 199740  
CTAGTTCTCA AAAAGCAAGA AGACTGATTC CTCGTTGTCA TTTCTCCTCC TCAGCATCAA 199800  
TGTTTTAGAG TCTGTGGGCC CCTCCAAGTG TGGAGTATGG TGTTACTTCA CCAGAGTTTG 199860  
AGGAGAAACA TTCTTCTTTT GGAAGGCCGG GGAGCATAGA TGGATATCAA GGCTGCTGTT 199920  
TCTAAAAGCG AAACCCACCA AACAACAGTA TTAGAATCAT CTGTGGTGCT TATTAAAGAT 199980  
ACAGATTCTT GGGCCCCATC CCAGACTTAT GAATCAGAAT CTCTGCCAGA GGAAGCCTGA 200040  
GAATTTGCAT TCTCAGATGA TTCTGCATTC TCAGATAACA CATTCTTTAG GTGATTCTTA 200100  
CACACACTGG AGTTTGGGAA TCGCTGAAGG CTGTTCACTT CTCTTTTCTG AGAAATGATT 200160  
CATTCAATTC AGAAATATTT GCAGAGGTCC TTATTTATTG GAGATTTGTG GGTGGGCAGA 200220  
GGAGAAATAT CTTGTCCTCA CAGAGCTTAC AATTTTTATT TTCTTTAGAG GTCACCAGGC 200280  
TTAAATGAC ACTTCCCTAA ATTCTGAAAA GAACAGATTT TTAACAACAG AAGGGACTGT 200340  
AATGTTTTCT GTTCCTACCT CGTATTTTGT TCACATTAAG AACCTGGGGT GGAAGTGGA 200400  
GGAGGGGGGG TGACTGGCGG GGGGCCACAG AGAGCTGAGC TGGGGTGCTC TCGAACTCCT 200460

FIG. 6.76

GAACTCAAGC AATCTGCCAG CCTCAGTCTC CCAAAGTGCT GGGATTATAG GCATGAGCCA 200520  
CCCACGATGC CTGGGTGGAA CTCAGGGCTC TGGATGCCTG GGC GCCCCCA TCTCCACAC 200580  
TACGGCGCCT CATCCTAGAA GTGGTTAGCA CCTTTGAGAT GGAATTATT TAGCAGGATG 200640  
CTTTGTGTT TTCATGTAAG TTTTATGCTG CCTGTGGAGG GCACAGCTGT TTCAAACTA 200700  
ATAACCAAT CCTGGTCTCC GAAGTCTGAA GGCATCCTT GCCCTGCAGT GCAAAGCACG 200760  
GGATTCTGGC CTCACACAGG CAGGTCTGAA CTCCTGTGTT GCCTCTTGCT GGCTGTGGGA 200820  
CCTGAGGCAA ATCATGCAAC CTCTCTTTTC TGTTGCTA GATGAAAAT AGGTTTACAA 200880  
TACGCCCCCA TAGGATGGCT GTGAGAATTA AAGGAAGTCA TGGGTGTACA ATACCTGGCC 200940  
CCGAAAGATG CTTAATAATT TAATTCTGAC CTTCTCACT CATTTAGGAT TATGTACCA 201000  
CTTTTAGAAA CAATGAAAGA TTAGTGAGTC TTCTGTGGT GGTATAAAAA AAAAATAGAA 201060  
ACATGAAAGA GATGTCCTCC TTGTCAAGG GCTAATGACC CTGGTGTGCG CTGTCTAGGC 201120  
CCCCAAGGTC TTCCTCCCT GCTCACAGCA TTTCAGGTC TCCGCAGCTT TGCTGAGCCT 201180  
GGGTCAGGTT CGGTATCTGC CCACCATGCT CACTTGCCAC AGCTGTGGCC CCATTTCCAA 201240  
ACTTCAGAGA CTTAAAGGTG CAGCTAATGA TGTGCCCGG CTGGGGTCAC ATTCCTGAG 201300  
CCCTGCAGAC AAGGGAGCAG GAGGCTGAGC TCTTATCTT CACACCCTGT GCACAGCCTG 201360  
GGAAGAGTTA AAGCACCTA GTCCTATGCT GCGAGGGCCA CATGCCCTGA GACCTTGGA 201420  
AAATCCTAC CTGAATTGAA GAGCATCACT ATTCATCAG GAGGCGCTGC CATTCATTT 201480  
TTCACTTCGG TTTTATCTTG AGTGAAAAC AGCTTCGCA ATCACTTTT CTGTTTCTG 201540  
TAATGAGCAT ATGGTGGCCT CATTCTGTG ATAAATCTGA GCCACCACGA TATTGACTT 201600  
TTCACAATTT AATTTATCTG AACCTCTAT TCTCTGGCTA AAAAATATCC CTTACTTGGA 201660  
CTTCTTTATT TTATTTTCAA TTCCCTTACC AGCACTAGCA GGGGACTCTG TACTCATCTG 201720  
CTGGCGCTGC CATAACAAAG CACTGCAGCC TGGGGGGCTC AAACCACAGA ATTTATTCTC 201780  
TCACAGTCCT AGAGGCTAGA AGTCCAAGAT CAAAGTGTGG GCAGGGTCGG TTTCTCCTGC 201840  
AGCCTCTCTC CTTGGCTTAT AGAGTGCCAC CTTCTACCTG TGTCTTCACA TCATCACCTC 201900  
ACTGAGCATG TCTGTGTCCA AATCTCCCCT TCTTATAAGA CCCAGTCAT ACTGGATGAG 201960  
GATCCACCCA TATGAGTTCA TTTTACCTTA ATTATCTCT TAAACACCCT GTCTCCAAAT 202020  
ACAGTCCCAT TCTGAGGAAC TGAGAGTAA GATTCAACAT ATGAATTTT GAAGGGACCT 202080  
AATTCAGCCC ACAACACCCT CTTTGGGAT GTTTATTTT CCCCTTAAGG AGCTAGTTAG 202140  
GATGTCTTAT CTCATGAACA TGAAGTGAA CAGGAAAACA GGGAGAGAAT GAAGCTGGCC 202200  
AAGGAACAGG GCTGGTGTCA GCTAGCAGTG CTTTCTGAT GTGAGTGGGT CCCACAGGGA 202260  
GCTTGTTAAA ATGCAGATTC TGATTCATTA GGTTCAGAG GGACCTGAGA TTTCCATTT 202320  
CTGACAAGTT TCCAGTGTGG GGGCTGATGC TGCTGGTCCA CGGACCATAC TTTGAGTAGC 202380  
AAGGAGCTTG ATACATAATG GCTGAGTGAC TTTCAGACTC CTGCTGTAGA AAAATTATGA 202440  
GTTGGCTGGG CGTGGTGGCT CACGCCTGTA ATCCAGCAC TTTGGGAGGC CGAGGTGGGC 202500  
AGATCACCTG AGGTCAGGAG TTCGAGACCA GCCTGGCCAA CATGGTGAAA CACCATCTCT 202560  
ACCAAAAATA CAAAATTAG CCAGGTGTGG TGGCAGGTGC CTGTAATCCC AGCTACTCAG 202620  
GAGGCTGAGG CAGGAGAATC GCTTGAACCC GGGAGGCAGA GGTGTCAGTG ATCTGAGATC 202680  
GTGCCACTGC ACTCCAGCTG GGCAATAGAG CTTGACTCAG TCTCAAAAAA AAAAAAGAA 202740  
AAGAAAAAGA AAAATTATGA GTTATATTAT CAGCATATGG GGTGCCTTTC AAATTGATA 202800  
AATTTCTAAT ATTAACCTG TGGATGCCAA ATGCTGCTCT CTGATTATGG CAGGAAACGG 202860  
CACTTGGCAG TACGAAGTTA GCTGTTGGGC TGAGCTGGCT CATCTTGTG TGCGGTCCTG 202920  
ATTGCCATAA GATGCCTTCC CAGGATCTTT ACTAACAATC CTCCTGAGTC ATTTGACTT 202980  
TCCCAACCTG TTATCACCTC TCAGATGGGC CAGCCATGGA GGCAGTCAGA GGAGGGCTCT 203040  
GCAGAGGGAG GGCAGAAACA GGGTGGCCTC TGCATGCCAT TAGGAGGTCA CATCTCACTG 203100

FIG. 6.77

GGGGATGCAG TTTAGGATTT AGTGCCTTGG AGAGAAGGAT AGAGTATATT AAAACATGTC 203160  
TCCGCTAGGC ATGGTGGTTT ACGCCTATAA TCCCAGCACT TTGGGAGGCC GAGGTGAGTG 203220  
GATTGCCTGA GCTCAGGAGT TCAAGACCAG CCTGGCTAAC ATGACGAAAC CTCATCTCTA 203280  
CTAAAATACA AAAAGTTAGC TGGGAGTGGT GCGTGCGCC TGTAGTTGCA GCTACTTGGG 203340  
AGGCTGAGGC ATGAGAATCA CTTAAGCCCA GAAGACTGAG GTTGCAGTGA GCCGAGATTG 203400  
CACCCTGCA CTCCAGCTTG GGCTACAGAG TGAGACTCTA TCTCAAAAAC AAAGAAACAA 203460  
ACAACAACAA TAACAACAAA AACCAAGTCT CTCCCTCCAC TCAAAAATGC AAGGGCCTGT 203520  
CTCCCATTCG TGGGTGCCCA GGTCTCATGA ATGTAGATAT GAATTATTCC AGTCAGCCTC 203580  
AGGAGAATAG AATGAGCCCT CAGATGCCGA AGCACCTTC AGATTCCACC GGTTTTATCG 203640  
GCTCATTTAA ACTTCACTC TAACACAGTC CTGCATTACA CACGTGTCTG TCGTTATGGG 203700  
CAGCTGCAGA GAGGGTCTTA ATGGTCCTAA TGCTCAGTGA GGATGCCCAA TGGTCAACAG 203760  
AACCTGCCAT CTTGAGGCCA TCAAGGAGCT CTGGAGTTAA GGAAATCATG AGAGCACAGA 203820  
GGGGCGGGTA CAGCAGAGCC CTCGTGGTAA TGGGTTTTGA GGTCTAGGCT CTCTTCACTT 203880  
GGGTTTGAAT TAAGTTCAAT GACTAGTAAT AGCTGAGACA CTTCTACCCT TCAAATGAAG 203940  
TAAATGGGAA AATGGAGCAT TGTGAGTCC AGGGAGCTAT AATTAAACC CCATATATCT 204000  
AAAAGGGGTA ACATTTTTGT GTGTGTGAAA TTGGTGTCT TCGCACTGCA TCTACAGTTT 204060  
TCTTTTCTCT TCTCTCCAG CACCCCTGGC TACATATTTG GGAAACGCAT CATACTCTTC 204120  
CTGTTCTCTA TGTCCGTTGC TGGCATATTC AACTATTACC TCATCTTCTT TTTCGGAAGT 204180  
GACTTTGAAA ACTACATAAA GACGATCTCC ACCACCATCT CCCCTCTACT TCTCATTCCC 204240  
TAACTCTCTG CTGAATATGG GGTGGTGTCT CATCTAAT CAATACCTAC AAGTCATCAT 204300  
AATTCAGCTC TTGAGAGCAT TCTGCTCTTC TTTAGATGGC TGTAATCTA TTGGCCATCT 204360  
GGGCTTCACA GCTTGAGTTA ACCTTGCTTT TCCGGGAACA AAATGATGTC ATGTCAGCTC 204420  
CGCCCCTTGA ACATGACCGT GGCCCCAAAT TTGCTATTCC CATGCATTTT GTTTGTTTCT 204480  
TCACTTATCC TGTTCTCTGA AGATGTTTTG TGACCAGGTT TGTGTTTTCT TAAATAAAA 204540  
TGCAGAGACA TGTTTAAAGC TGATAGTTGA GGGGTTTTGT TAATGGCTTT TGGGGGATTT 204600  
ATCTCTATAC CCACAAACGA CTAGTTTGTT TTCCTCAAAC TAAATGATAA TATTAATAAT 204660  
ACACATCCTG GCCAGGTGTG GTGGCTCATA CCTGTAATCC CAGCACTTTG GGAGGCCGAG 204720  
GCAGGTGGAT CACTTGAGGT CAGGAATTA GACCAGCCTG GCCAATATGG TGAAGCCCTG 204780  
TCTGTACTAA AAATACAAAA ATTAGCCAGG TATGCTGGTG GATGCTTATA ATCCCAGCTA 204840  
CTTGGGAGGT TGAGGCAGGA GAATTGCTTG AACCCGGGAG GTAGAGGTTG CAGTGAGCCA 204900  
AGATCATGCC ACTGCACTCC AGCTTGGGCA ACAGAGTGAG ACTCCATCTC AAATTAATAA 204960  
AAATACACAT CTGGCTTCTG GAAAAATTAC TTGAAGATCT TTTATGACAT CCATCCCTCT 205020  
TCACACAGCC ATGTGAATTA GGTGGTATC TTCATATACT AGCATCGTGC CCAGCACTTC 205080  
CATGTTATAC AGTTTAAAT GTTCTGTAAT TCCCTGTGGG AACCTAAGAT AATGCGAGGA 205140  
CCGTCATACG TGCCCCAAA TATTGGCAAA CCAATGAATA AATGAATGAA TGAGTTTATG 205200  
AATCGCTAAC TGGCTGTATT TAATGAAGTA TGTGTGTTGA GCCATTTCCC ACAGTGTTGA 205260  
CAGATTTGTC CCACAATATG GGCCTCTTCC CAAAGGCCCT ACCACCTAAT GCCATCACAC 205320  
TGGGGATTTG ATTTCAACAT GTGAATTTGG GGAGAGTGCA AACACTCAGA CCATAGCACC 205380  
ATCTCAGTAA ATGTCCCACT GGTCCTCAG TTCATAGTGA CAGTGATCCA GCCACTGTCA 205440  
TGACAGGTGC CACTTGGCAG AAACAGCACA GCTTGGAAGA TGGCGGGGTG TAGTCAAGAT 205500  
TCCAGGATCC CCAACAGAGA AGCCAGCTCT TATAGGGGAG CCATTCATCA GGATTGAACT 205560  
CTCAATCGAG CTGGACAGTA ATAGGTGGGT CTGTGTTATT CCCCAGATGA GTATCATGAC 205620  
AGTCACAATC CTAGGAAGGA TGTGAAGCCT CCCCAGCTC TCCTCCAGTT GCCTGCTTGG 205680  
GCAGCAGAGA TGATGGAATG TGGAGTCTGG CGTGGTCTGA GGCCTGAATC CATGTGCCTC 205740

FIG. 6.78



ATGTATGATG CTCAGGCAAG AGGATCTCTC AATTCAAGGG AGAGGGCCTG AATGAGCCTT 205800  
GCTTTCCAGG CCTGTCTGAT GGTCCAGGCT GAAGCCCCTC CTGGCTTGCA CTGCCAGACC 205860  
TCATCCAGCA GGAGCTCCTT GGCATTGACT GCTTCAGGAT AGTTGCTTCT GCTCTGAGTG 205920  
CTCTCTAAAG AGCAGTGCTC TACCATCCAA GCTGGGCTTT TCTTTTCTTC TTGCTGATAG 205980  
GGAAGGCATG GGACATTGCA GGATGGAAGT GGCCCCCAGG CCTTCTCATG CCTGGGCTTG 206040  
GTTTGGAAGG TGGTCAGGTG ATCAATAATC CTGATTGGCC TGGCATTGAG GAGTTTTCCT 206100  
GGGATGTGGT CCTTTCGGTT TTTTAAAAAT TATTTTATT GATACACATA TTTGTAGGTA 206160  
TTTGTGGGGT GCATGTGATA CTTTATTATG TGTGTGGATT GTGTAATGAT GAAGTCAGGG 206220  
CATTTAGGGT CTTTCATCACC TTGATTATCA TTTCTATGTG TTGAGAACAT TTCAAGTTCT 206280  
CAGTTCCAGC TATTTTGAAA TAGACAGTCC ATTTTGTTAG CTACAGTCAC CCAACCCGGC 206340  
TGTCAGACAT TGGAACTTAC TCCTATTGAA CTGTGTATTT GTACCCATT CCAAACCTCT 206400  
CTTTGGGCTT TCAGTTTAC AACTGGGATG ATCCTGGGAA AACTAAAGTA AATCAGACAC 206460  
CCGACGTGTG AGCTAGGTTA TAATATGCCC AGTGGACCCT GGGGACATCT TAGCTTTCAG 206520  
AGGTCATGCT GTCCAAGCTG ACTGTGGGGC TTCCAGAAGG TGGGGAGAGG AAATGATGCA 206580  
ATGGCCCATC AGAGGCCACTA CTTGGGGCCT GGGGCCAGAG TGCATGTCTA AGGCATTAAG 206640  
GGGAGGGGAG AGCAGCCTTC ATAATTATGA AGAGGAGTCT CAGGTGCACA GCTTCTGATG 206700  
AGGGACAGCT TCTAATTGAA GACAGCATTG TGTAATGCTC AACTCCCTG TCTTCAGAGT 206760  
GCCTGCTGTA TCCCACCATC AGTTCTGTGA CTCTCCCTA AGCCTCAATT TTGCATGTGT 206820  
TACATTGGGA TAATAATAGT GCCAACTCA TGGGGTTGTG AGGAATAATG AGGTAAAGCA 206880  
ATTGAAAAGG TTTAGCACAA TATAAGTGCT CAATAAAAGC CATTATTATT ATTTTATTAC 206940  
ACTAGTTTTT AATTCCTGCA TAGCAAATTC TTGCAAATGT AGGGACTCAA AACAATATAA 207000  
ATTTATTATC TGACAGTTTT TCTGGGTGAG AGGTCTTACT AGGCTGTAAT CAGAGGGCAA 207060  
CCAAAGCTGT GATCTCAGCT GAAGCTCAGG ATTCTCTTCC AAGCTCACTG GTTGTGCGCA 207120  
GAATTCAGTT CTTTCCAGTT GGAAGACTAA AGCCTACAGT CTTCACTCTC TAGAAGCCTT 207180  
TTCTCTGGCA CAGGTTTCTC TACAACATGG CCATTTATGT CTTTAAGGCC AATAGGAGAA 207240  
CATGATTAGC ATATTTTTTT TAAGTGAAGT TTAGACCCTT TTTAAAGGC CTATCTGATT 207300  
AGGCCAGGCC CAAGTGAGCT TTAAGTCAAC TGATTAGAGA TCTTAATTAC ATCTGCAAAG 207360  
TCCCTTCATG TTTACCGTAT AACATAACTT AGTGAAAGGA GTGAAATTGC AACCAGGTTT 207420  
TGCCTGCACT CCACGGAAGG GGATTCTGCA GAAGTGTTGGG TCACGGGGGG GTTATTTTGG 207480  
GATTCTGCCT ACGTCACTGA GTCAAAAGAA GCTGAATGGT TGTGATGCTG AGGTTTTTGG 207540  
GCAGCAGCAG TGTGTGTGTG TGAGTGAATT CATACGTATG ACCACCTGGG AAGAAAGGAG 207600  
GCTGTGGTTT CCTCCACCTC CTGGCAGACA GAGAAATTTT TTTTTTTTTT TGAGACAGGG 207660  
TCTGGCTCTG TTACCCAGGC TGGAGTGCAG TGGCTTGATC TCTGCTCACT GGCTCACTGC 207720  
AGCCTCTGCC TCCCAGGTTT AAGTAATTCT TGTGCCTCAA CTCCAAGTAG CTGGGATTAC 207780  
AGACACACAC TGCCACGCCT GGCTAATTTT TGTATTTTGA GTAGAGACGA GGTTTTGCCA 207840  
TGTTGGCCAG GCTGGTCTTG AACTCCTGAC CTCAAGTGAT CCGCCACCT CAGCCTCCCA 207900  
AAGTGCTGGG ATTACAGACG TGAGCCACCA TTAACCATTT TTCTATCTCC TGTGGGAAAG 207960  
GGCACAGTGA AAGAACAGAT GAAGCTGAGA CATACAAGTG AACTCCTCCC TCCTCTCCAT 208020  
TTAGACTAAA ATAGGATTAT TCATACTGAG ATTCTCCCTG GTTGCAAAGA GATAATCTGT 208080  
GCAACTGGGT TTTTACAATT ATCCCTACCC TATGCTTTCC TCATCTGTCT TCCTCGTAGT 208140  
CAGCTCAGGC TGCTATAACA AAACACCATA ACTGGGGGCT TTTGAACAAC AAACTTTTAC 208200  
TTCTCACAGT TCTAGAGGCT GGAAATCCAA GATCAAGTTT CTGGCAGATT CGGTGTCTAA 208260  
TGAGGTCTTG CTTTCCAGTT TATAGACAGT GCCTTATCGC TACCGCCTTA CACAGTGGAA 208320  
GGAGAGGACG AGAAGCTCCT TGGGCTTTTT TTTGTTTCTT TCTTCTCTC TCTCTCTCT 208380

FIG. 6.79

TTTTTTTTTT TTAATAAGGT CACTATCTTA GTCCATTTTG TGTTGCTAAA AGGAACATCT 208440  
GAGGTTGAGT AATTATTTTT ATTTTAAAAA GTGGCCAGGC ATGGAGGCTT ATCCTGTAAC 208500  
CCTAATCCTT TAGGAGGCCA AAACAGCAGG ATTGTTTGAG GCCAGGAGTT CAAGACCAGC 208560  
CTAGGCAAGA TAGTGAGACC CCATCTACCC CATCTCTACT AAAATTTTAA AAAATTAGCT 208620  
GTGTGTTGTA AAGTGTGCTT GTAGTCCCGG CCACTTGAGA GGCTGAGGTG GGTGGAGTTC 208680  
AAGGCTGCAG TGAGTTATGA TTGAGCCACT GCACTCCAAC CCGGGTAACG GGGCAAGACC 208740  
TTGTCTCTAT TTAATAAAAA AAAATCTTTA TGTGGCTCAC TATTCTGGGT GGCTGGAAAG 208800  
TTCAAGATTG GGCATCTGCA TCTGGTGACA GCCTCATGTC GCTTCCAGTC ATGGGGGAAG 208860  
ACGAAGGAGA GCTGGCACGT GCAGATATCA CGTGTTGAGG GCAGAAGCGA GAGAGAGAGG 208920  
GGAGAGATGC CAGGCTCTTT TTAACAACCA GCACTGGGGA AACTAATAGA GTGAGAGCTC 208980  
ACTGACTCCT GAGGGAGGAC ATTAATCTAT TGATGAGCGA CCTGCCTCCA TGACCCAAAC 209040  
ACCTCCAACG ATACCCCACC TCCAACACTG CCACACTAGG GATTAACCTT CACTTGAGA 209100  
TTTAGAGGGG GGAACTTAC AAATATCGC AGGCACTAAT ACCACTCATG AGGGCTCCAC 209160  
CTTCATGACC TAATCACTTC CTAAAGGCCT TACCTCTTAA TCTCATCACA TTGAGGATTC 209220  
GATTTCAACT TGAATTTTGG GGGGACACCA ACATTGAGG CATAGCATCA TCTCAATAAC 209280  
TGTCCTATTG GTGGTCACTC AGGCCCCAAA CAAAGGAACC TTCCTCCATT CCTTCCGCC 209340  
CTCCACCCA CAGTCAATCA TCCCAAGCT CCATCAGTC CACCTTTAAC GGCCAACCCA 209400  
CCTCTGCCAC ATCTCACCAT CTCCACTGCT ATCCCTGTCA CCTGGGCCCA CCATTCTCTC 209460  
TCCTGGACAG TCTCCATAGC CACCTCTGTC AGATTTATTT TATTTTTTTA TTTTTTTTTT 209520  
TGAGACAGGT TCCTGCTCTG TTGCCCAGAC TGGAGTGCCA TGGCATGATC ACATCTCACT 209580  
GCGGCCTCCA TCACCTGGGC TCAAGCAATC CTCCCATCTC AGCCTCCAA GTAGCTGGGA 209640  
CTACTGGCAC CACCATACCT GGCTAATTTT TTGTTGTTGT TGTTTAATTT TTAATACAGA 209700  
TGAAGCCTCA CTATGTTGCC CAGGCTGCTC TTGAACTCCT GGGCTCAAGT GATCCTCCGG 209760  
CCTTGGCCTC CCAAAGTGCT GGGATTACAG GCATGAGCCA CCGTGCCCAG CCCATCAGAT 209820  
GTTAATGCTA CACGCACTTG CTAAAATCC CCCAGATAAT TCTCGCTGCT CTTGGAATAA 209880  
TTCCACACA CCTTGGCGTG GCCATGCAGG CTCTGTGCCA TCGGATATGT CCCTGCCCCC 209940  
TCTCCCAACT CCTCCTTTCT CTTGCTCGTT CACTCAGTTC CAGCCACATT GCCCTGGGAG 210000  
CTGCTCCAC CATGGGGCTT CCTAATGCAC TGGTCTCTCT CATGCAGTGG GGCCTCTCCC 210060  
TCCTTTTACT CAGTGTCTCC CAGCACCCAC CTCCTCCAGA GCCTTCCCTG ACCACCACAC 210120  
CTACACCTAG GCCCTTCTC CTCCACGCTC CTCCTCCAC CCCGGCCTCC TACCCACGTG 210180  
TCACTTCTTT ATACTCGCTG CCACCTGAAA TTAGATCATT TATTTACCCC TTTATTTGTT 210240  
CAGTTTGCCT TGTCGTTAG AATATAAGCT TCAAAGGGC AGGAGCTTTG CCTATATTGT 210300  
TAGGCCGGGC ATACAATGAG CACTCAAAAA AATATTGAT GAGTGTATGA AAGAACAGAC 210360  
TGGGTATGT AATTGTGCCT ACTTACCTAT ATGACCGTGT GGTGGGGTTT ATGGTGGGTG 210420  
TGGTGGTGAT GGCTATAGG CTATAAGCAA ATTTGGGACA GGGAGTCTAA GAAATGTTCT 210480  
TAAATTTTAG TAAGCAAAGC ATCCTCTACA GAACCTGTCT TAAAACATGA AAGTTCCTTA 210540  
GTGCTACCCC CAGAGGTATG ATTTGGTAGG TCAAGGATAG GGCCTGGAAA TTCACATTCT 210600  
TGTTAAGATG TTCTTCATCC GGGGTTTGTT GACCACCTTT TCAGAAGATT TTTGCTCTGT 210660  
AGCTGTACTA CCCAATGCAG TAGTTCGTAG TCAGTGTGGC TCCTGAGCCC TTGAAGTGTA 210720  
GCTCCTCTGA ACTGAGACGT GCTGTAAATG TAAATTGCAC ACCGGAGTTT GAAGAGTTAA 210780  
TACAAAGAAA AAGGAATGCA AAACATCTCA TTAATAATGC TTTACACTGA TTACATATTG 210840  
AAATGGTAAT CTTGTAGATA TAGTGCGTTA AATAAAATAT ACTGTTAGGC TTAATTTAC 210900  
GTCTTTATAC TTTAATGTG GCTACTAGAA AAATTTAAAT AACATATTCA GCTCACATTA 210960  
TACTCCTATT GAACAGAGCT GATCTATAAG TTCCATGGAA GATGGCAAGT CTTCGCAGCT 211020

FIG. 6.80

GAAATAAAGG CTGGATCCCA TTCTACGGGC TCATCTTTAG CAATGATTTC TTGCAGACGA 211080  
TATTGAAAAA TGTGGCAATG AAAGTTACCA CAAGCATCAA ACCAGTCCTG CCTAAATCTG 211140  
GAAAATAGTT ATCTGAGGCT GTTAGCATAT GATCATGAGA GCGTTTCACC ATGGATTTCT 211200  
GATCACAGAT GTGGCACATT ATTTAAATAT CACTTTTACA GTCACCCTAG AGGCTAGGGT 211260  
TATCTGAATA TGGAGAAAGA AACAGCTTGT GGAGCTGTTG TATAAATGAA ATTACTAGAA 211320  
AGTAATGCAC TCAATTGCAT ATTGGCTCGG GGGGTTATTC TTATTAAAT GTTTAGAGAG 211380  
GACTTTCTGT TCATTTCTGC AGAATTGCTC TTCAAATTAA GAATTTGCTT GACACGCTAA 211440  
TAGACCACAG TCCCAAGAGA AGTTTATCCT TTTTCTTCT TATCCTTGCT AAGCACTTAG 211500  
ATGCTCTGCT GATAGGTAGC ATATATTGTC TATATGAAGC TTTTGTGTTA ACATTGACTA 211560  
GTCCTGCAAG TTGGCACACT CTTACTTGGC CTAAAAGAAA TCAGCACCAG GCTTTAAGAA 211620  
AATCAGATGA TCTACCTAAA GGAACACAAC TCTGTCTCTC TTTTGACAAT TGTTGTAAC 211680  
AAATTTTAAT GGAAATTTGC CTTAATTGTG AAGAAGTTGC TGCTAAAATG GACTTGCCAT 211740  
TAATGGACTG GAACCCATTG CATAAGCAGA ATGAAATATA AGCCTTCTCA GGATTCACAC 211800  
TTATAAAAAA CCATTGAGCC AATCAACAAG AGGGCAAAAG AACAAACATT TGATGTGTAA 211860  
TTACTTAATT TAGTGCATAT GCATTTGGGT CCTCAATGTC AGCACTATGG CAACCAGAAC 211920  
ATGGCCACAA TAACTGTCTG GAAATGTCTA TTCTTACCTG GACCCAGCAG GCCATGCCCC 211980  
ACTGATTATA TAATCTCCCT CTCTCCTTGT TACGGTCTGA ATGCTTGCAT CCCTCAAAAA 212040  
TTCATGTGTT GAAATCCTAA CCCCCAAGGT GATGATATTA GGAGGTCGGC CTTTGTAGAG 212100  
GTAATTAGGT CATGAAGACA GCATCCTCAT GAATGGGATT AGTGTCCTTA TAAAATAGGC 212160  
CCAAGGGAGC TCATTCACCTT TGTCACCAT GTGAGAACAC AGCGAGAGGG CACCATTAT 212220  
GCACCAGGAA ATGGGCCTTT TCCAGACAAT CTGTCGGTGC CTGGATCTTG GACTTCACAG 212280  
CCTCTAGAAC TGTGAGAAAT TAATTTGTTT TTTATAAGCC ACCAAATCTA TGGTTTTTTT 212340  
TATAGAAACC GTAATGGACT AAAACACTCC CTAATTATAT TTAACCTTAT CAGTGCCTG 212400  
GGCAGTGACA TATTAAGAAGA ATGCTGGCCA ACGTAATTGA CACCATAAGG CTGGATGATT 212460  
CTTGTAATTT TCAGCCTCAG AAAAAGGCTG GGGAGAGGAG TCAGGGGAAA GGAGGTGGTG 212520  
TGTGTGTGTG TGTGTGTGTG TGTGTGTGTG TGTGTGGTAC GGTGGATGCC TGCTGAGAGA 212580  
GAAAGAGCTA TAATAACATT CTGTGGTTCA GCTGACACAT CCTTTCTGCA TCCCCTCCAA 212640  
TCACCTGGGT TAATGGGGAC CTCGCTAATG TCTGAACCTC ATCTCATTTT AACCTTTTGT 212700  
TTCAAAGCCT CTCTTTTCAT GACTTCCCCG CCTTCATTTT TCCCATATGG TGGGGTTATT 212760  
ATTAAGACAT TAAATGAGAG TGGACAGGTA GGCAAAGGAG GTGGGTTGCA GGGGAGTTGA 212820  
GGGTGCTGCTG TGTACTTTTC TAGACTGTTT CACTTCACAT CAGTGAAATA TTCCCAATTG 212880  
ATACTATCAT GAAACAAAGC AAATGAAATG CTGAGCACGG AGCTTCGTCT TGATGAAATG 212940  
CTGAAAGAAA AGAAAGGAAA AATAAAGTAG CCATTATTTT TGCCCTTCCT CCCACCCCCA 213000  
TGTTTACTAC TCTTATTTCT CTTTGTATT GTTGTGTTGG AAGCACAGCA TCAGAAAAAC 213060  
TCCCAGTTTT GAGAGATAAC TCAGTGTTTA GTTCACTTAA ACCTGAGAAA GGAGAAGAGG 213120  
ATGCCACCGT GAGGTCCAGG ACGTAAAGAG GAAAAAACA GACAAAAAAA TCCATATGAA 213180  
ATGAAAATGT GAAAGAGGCG CTTTCGAGCA GATGAGTGT GTAGATTACA GTGTTGAGAG 213240  
CTGTTTGTGT CCAGAGCTGC TTGCTGCACC TGGCGGGATA AACACTGGTC TAACAGAGGA 213300  
TCCTTGTTC AAGGAGGCTG CTTTATTTT GGGGGGACAA AATTGTTCTT GAAAGCTGCT 213360  
CAGTGGTTCA AGCTACAGCA TGGTGGACTA GCAGAATGGA CTCCAGGGCC TCCGAGGAGA 213420  
CAGTGACTGC TGCCAGAAAT AGTCAAGGAT AGAAAGGAAG GACTTCACTG AGGCCTGGGA 213480  
GAAGATTATG GAATGGGACT GACAGCAGTG ACGGGGAGTA AAAGGGGGTG TCTGGGGGAA 213540  
TTGTGCCCCA TGGTGAGAGC TAGAGGGTTC ACAAAGACTT AACCCGACGC ATCTCTCTCA 213600  
CCCTGGAGAT TGGGCCCGTT CAATCTAACT GGATGGCTAT AATTAAAAAG GTTTAGGTAT 213660

FIG. 6.81

TATGACAAAC ATGGATATAT TAGGTGATAG CAATGCAAAA TGCATATGGC TTCTTGATAT 213720  
AAAACACAAG ACTTGAAAGC AGCATCTTTG GCTGGGTACT ACAGCCACCC TCCTCTGTCA 213780  
CTAAGGGAGG CTTTGGTGA AAGGGCTGAG AGCCTCTAGA CTGTGAACAA AAGTAGGCAC 213840  
AGAAGAACAG TTGGAGATAA TAAGTAAACC ATCTTGACAG GAATGAAGAA TTCCTGAAA 213900  
GGAAGGTCCC TGAGTTAGGT TGTGGATGC TTTCAGTAGT GAGTTATTGA AAGTGTTTGG 213960  
GGGGTGTGTG TGTGTGTGTG TATGTGCAGT ATGTGTGTGT 214000

//

FIG. 6.82

Amino acid sequence of FLAP ( >alox5ap\_protein translation NM\_01629)  
MDQETVGNVLLAIVTLISVVQNGFFAHKVEHESRTQN  
GRSFQRTGTLAFERVYTANQNCVDAIPTFLAVLWSAGL  
LCSQVPAAFAGLMYLFVRQKYFVGYLGERTQSTPGYIFGK  
RIILFLFLMSVAGIFNYYLIFFFGSDFENYIKTISTTISPLLLIP  
(SEQ ID NO: 2)

MRNA of FLAP (NM\_001629\_mRNA)

Acttccccctcctgtacagggcaggttggtcagctggaggcagagcagtcctctctggggagcctgaagcaaacatgga  
tcaagaaactgtaggcaatgttgcctgttgccatcgccacctatcagcgtggccagaatggattctttgcccataaag  
tgagcacgaaagcaggaccagaatgggaggagctccagaggaccggaacacttgcctttgagcgggtctactg  
ccaaccagaactgtgtagatgcgtacccacttctcgtgtgctctggtctgcggggctactttgcagccaagttcctgct  
gcgtttgctggactgatgtactgtttgtgaggcaaaagtactttgtcggttacctaggagagagaacgcagagcaccctg  
gctacatatttggaaacgcatactcttctgttctcatgtccgttgcgtgcatattcaactattacctcatcttcttttcgg  
aagtgactttgaaaactacataaagacgatctccaccacctctccctctacttctcattccctaactctctgctgaatatgg  
ggttggtgttctcatctaatcaatacctacaagtcataattcagctcttgagagcattctgctcttcttagatggctgtaaat  
ctattggccatctgggcttcacagcttgagtaacctgtctttccgggaacaaaatgatgtcatgtcagctccgccccttgaa  
catgaccgtggcccaaatgtgctattcccatgcatgtttgtttgttcttacttatcctgttctctgaagatgtttgtgaccaggt  
ttgtgtttcttaaaataaatgcagagacatgttt (SEQ ID NO: 3)

FIG. 7

SNP name      SNP amplimers

SG13S421

GATTATATCCCACCTACCACTGCAGCTCCAGGATCCAGCTTCACAA  
ACATTTGTTGAATGAATGAATAAGAAAAGAGGACACCCCCAAAGAGGCT  
GCAAGGGAAAAAGCTACAAAGACAGAAGCACCAGGAAAAAGTAGGGTC  
ATGTAAGTCAAAGCAGGAAAAAAGTTCCATGGTGGGGTGGTCAGCAGTGT  
CTAAT[A/G]CCACGAAGGCACAAAGTAGGATAAAGGTTAAAAATCAGCCT  
TTGGTTTTGGCAAATATGAAGCTTATCGGTAGCCTTAGCGAGAACAATTCC  
ATCAGGGAGCAGAAGCTAACTGCAGTGGGTTGAGTCATCAAGCAGGCAT  
AAGGAAGTAGGGATACCCCATTAAGCTACTCTTTCAAGAAGCTCAAAAT  
CTGAAG

SG13S417

ACAAAAATTACCATCATATGCTGTGCATGCATGTCTGCCAGTCTATTT  
ATCATATTATTTAAGAAACAAACATTTATTGAAGATTTATCATGTGCTCAG  
CACTGCCAAAGAGGAAATAAAGAGCATAATATCTATTCTTAGAAAAATAAC  
ATTAACACAAATAGAAAACAAGAAACCATAATGTTAAAAATATTACATAG  
[C/T]AACACAGAAAGACAATGTATAATTATACATACGCACTAAAGCAAAG  
ATAACATAATTTATAAATTATGAGGTACAGAATAGTTAGATTCTGAAAAT  
TAAATAATCAGGAAAAACTTCATGAAGATGAGATCTGGGCTGGATCCCA  
AAGGATAGGCAGGTGGATCATGTAGAACAGGGGAAAGGAGTTCCTGATC  
GG

SG13S418

AACTAAAGAAAGCCACAAAAGTTCACCTCAATGCCAAGACATTTCT  
TGATTTTTGAAAACCCAGTTGTGCGAACCACCCATCTATAGAACTTGAAA  
GACTAAAAACTATCTTACTCTAAACATTTTCTAGGAAGTTGATTCTACAAC  
ACATTTTGGTTTTTCCAATTTGGCTTCTAATAATTATTTCAAAGTTTCTGTG[  
A/G]CCTAAATTTTGTTTTACATTGATCCTTTGAATGGACTACTGTTTCCACA  
TTTTAGAACATTTAAAAAGATATCTACAACCCGAGTCTAATCATAAAAAA  
AATCAGACAGATCCAAAATGTGGAACATTCCACTAAAAAAGGAGTGGGG  
AGAGGTCTTTATTCTTCCAAAAATATCAATGCCATAAAAGACAAAGACG

SG13S44

ACCCTTCAACCCCAGCCCAGCTGCTAACTGACTACAGCCACATGAA  
CAGAACCAGGTGAGACCAGAGGAACTTCCAGTCACCTACCAGATCATGA  
CAAATAATAAACGATGTTTTTTAAACCACAAAGATTTGGAGCAGCATTG  
TTACACAAAATTAGACAACCTATTACAGTTGCGACTAAAAACATGTTTATT  
C[A/G]ATACTAAATTAGAAGTGTAAGAATGGGAGAAAAACTTCATACTTTA  
AAAGTCATTTTTTCTTCCAAAAACTTCCAACCTTTGAAAAACTGATTTTTAT  
AATGCATAAAAAATTAAAAATAACCTTAGAATTTATATGAGTAGCATAGCCA  
GCTGGCTTTATTATCTGTTGTACTCAACACTTCAATAATCACTGATGTTT

SG13S45

ATGACCTTACCTCGTTTTGTTTTCTTGTCTGAGAGAAACACATTAG  
CAGTCTCCCATCTTGTTTTTCTTTTCTTGTGTCACCCAGGACAGAGGGCAGT  
GGTGTGATCACAGCTCTGCAGCAGCACTTCCCCAGGTTTCAGGTGATCCTCC  
CACCTCAGCCTCCCAAGGAGCTGGGACCACAGGCACATGCCACCACGTC[  
C/G]AGCTTAATTTTGTATTTTTTTGGTAGAGATCAGGTTTTGCCTTATTGCC  
CCAAGCTGATCTTGAATTCCTGGGCTGAAGCAATCTGCCTGCCCTGGCCTC  
TCCAAGTGTTAGGATTACAGGTATAAGCCACCGTGCAGCCTTATATTTTGT  
TTAAATTTTCTCTGTATTTTTCTCTGTCGCAAATTGTTTAGGGA

FIG. 8.1

SG13S46

TTTTTTGGTAGAGATCAGGTTTTGCCTTATTGCCCCAAGCTGATCTT  
GAATTCCTGGGCTGAAGCAATCTGCCTGCCCTGGCCTCTCCAAGTGTAGG  
ATTACAGGTATAAGCCACCGTGCAGCCTTATATTTTGTTTTAAATTTTCCTC  
TGTATTTTTCTCTCTGGCAAATTGTTTAGGGAGTTTCTTTAGTTTATC[A/G]  
GACTAAATTTCAAGGCTTTCCTTCCAATTTTGACATGTAAACAGTCCCTCA  
TTTCTGCTTATCTAGTGATTATTCCCAAATCTGTGTTTACAGTCTAGCTGTC  
TCTCCTGAGATTAAGACTTGTTTCTCTAACTACCTGACGGCAGAATCTCCT  
CTTGGAAGTATCAAGGAGGCAGTTCAAACTGAACTGGGCATT

SG13S50

GCTGATCTTGAATTCCTGGGCTGAAGCAATCTGCCTGCCCTGGCCT  
CTCCAAGTGTAGGATTACAGGTATAAGCCACCGTGCAGCCTTATATTTTG  
TTTTAAATTTTCCTCTGTATTTTTCTCTCTGGCAAATTGTTTAGGGAGTTTC  
TTTAGTTTATCAGACTAAATTTCAAGGCTTTCCTTCCAATTTTGACATG[C/T]  
JAAACAGTCCCTCATTTCTGCTTATCTAGTGATTATTCCCAAATCTGTGTTT  
ACAGTCTAGCTGTCTCTCCTGAGATTAAGACTTGTTTCTCTAACTACCTGA  
CGGCAGAATCTCCTCTTGGAAGTATCAAGGAGGCAGTTCAAACTGAACT  
GGGCATTGGCTCCACTCCTTCTCCTTCTCTTTACTATTAATACCC

SG13S52

TAAGTCTTATTTAGGCATCGTTTCTTCTGGGAGACCTTTGTAGAATC  
TCTGAGGTTATGTAAACATGCTAAGGTTTTCTTGACATTCTCAGATTGGGT  
TAGGTGAACTTTATAGCAACTTATCTTTTTACTAAAAAGTCATCCCTCAGTA  
TCTGTGGGGAATTGGTTCTAGGACTCCCTAAGGATATCAAAATCTGCAT[A/  
G]AGCAGCCCAGGTGAGACCAGCAGAAGCACTTTACAGTCACCTACAGGA  
TCATGACAAATAATAAATCATGTTTAAAGCCACAAAGTCCTTTACATAAAA  
TGGTATAGTATTTGCATATAACCTACACATCTTCCTGTATCCTTTAAATCAT  
CTCTAGTTTATAATACCTCATAACGATGAAAATACTACGTAAATAGTT

SG13S53

AAGCAGTTCCTAATTACTGGACATTCTCAGATCTGCTAGAGCTACA  
TGTCCAATTACGAGAATATACTGGAAAAAGCCCTGGATTAGAAATGAGAG  
GATGTAGGTTTTAGTACCAGGTCAGCCACCTTGTTAATGCAAATTTGAGTA  
AATTGTTACTTCTTTTAGGCCTTGTTTTTGCTGTTTTGTTTTCTGACAGT[A/  
C]TGGTCTCTGTGGTCCAGGCTGGAGTGCAGAGGCACAATATCAGGTCCCT  
GCAGTCTCTACCTCCCAGGATCAAGCCATTTTCATGCCTCATCCTCCTGAG  
TAGCTGGGATTACAGGCATGTGCCACCACACCCTCGAACTCCTGACCTCA  
AGTGATCTGCTTGCTCAGCCTCCCAAAGTGCTGGGATTAGAGGTGT

SG13S55

GAATATACTGGAAAAAGCCCTGGATTAGAAATGAGAGGATGTAGG  
TTTTAGTACCAGGTCAGCCACCTTGTTAATGCAAATTTGAGTAAATTGTTA  
CTTCTTTTAGGCCTTGTTTTTGCTGTTTTGTTTTCTGACAGTATGGTCTCTG  
TGGTCCAGGCTGGAGTGCAGAGGCACAATATCAGGTCCCTGCAGTCTCT[A/  
G]CCTCCCAGGATCAAGCCATTTTCATGCCTCATCCTCCTGAGTAGCTGGG  
ATTACAGGCATGTGCCACCACACCCTCGAACTCCTGACCTCAAGTGATCT  
GCTTGCTCAGCCTCCCAAAGTGCTGGGATTAGAGGTGTGAGCCACTGTG  
CCTAGCCTTACACATTGTTTTCTTACTGGTAAAGTGGAATATCTAGA

SG13S56

GTTTTGTTTTCTGACAGTATGGTCTCTGTGGTCCAGGCTGGAGTGC  
AGAGGCACAATATCAGGTCCCTGCAGTCTCTACCTCCCAGGATCAAGCCA  
TTTTCATGCCTCATCCTCCTGAGTAGCTGGGATTACAGGCATGTGCCACCA  
CACCTCGAACTCCTGACCTCAAGTGATCTGCTTGCTCAGCCTCCCAA[A]

FIG. 8.2

G/T]TGCTGGGATTAGAGGTGTGAGCCACTGTGCCTAGCCTTACACATTGTT  
TTCTTACTGGTAAAGTGGGAATATCTAGAAGTTGCATGCTACATAAATTCA  
ACCATATATTATTGGCAAAAAATTTTAAAGAAAAACATCAGCTTAAGAGT  
ACTAATTGAGTACATGCCTTGGAATGAGCATGAGCTGGAAAGAACAAA  
SG13S57

GGCAAAAAATTTTAAAGAAAAACATCAGCTTAAGAGTACTAATTG  
AGTACATGCCTTGGAATGAGCATGAGCTGGAAAGAACAAACCTGTTGTTA  
CATCACTCATTGCTGTTTTTCATATGCTGCTCATTGTAAATCTTGCTCAGTGG  
CATGATTTTAGTGTTTAAAGATTTATTTGTTTGTGTTTAGGACAAAGTC[  
C/T]CTACACATAATCTACTTGCTTCATATATACATACTTATGCATATTATGT  
ATGTACATACATGCTCTCAGGGCTCACATGAAAAAACAGCCATTCAGGTG  
ATGTGATTTATCTCATATGCTTACTTTAGAGTCAACAGGGTGTTGACTCCA  
CTATACAATACTGGCATGGAGAACACATAAGTCAAAGTAGACAGGAC  
SG13S58

TTTATTTGTTTGTGTTTGTGTTTAGGACAAAGTCTCTACACATAATCTACT  
TGCTTCATATATACATACTTATGCATATTATGTATGTACATACATGCTCTC  
AGGGCTCACATGAAAAAACAGCCATTCAGGTGATGTGATTTATCTCATAT  
GCTTACTTTAGAGTCAACAGGGTGTTGACTCCACTATACAATACTGGCAT[  
A/G]GAGAACACATAAGTCAAAGTAGACAGGACCCAGCCGTACCATTGGCT  
AGGGCACAAATATATTCACATATGTGGAGAATGATGTACGTAGAAAGGTC  
TTCATTGCACAATGCTCTTTAATAAAGATCTGGAAAAAAAAAACACCTAA  
ATGTTCAAAGGATAGGGTAGATGAAATAATGGTACATTATAAAATGGAA  
SG13S59

TCTGTCACCCAGGCTGGAGTGCAGTGGCATGATCATGTCTCCTTGC  
AGCCTTGACTTCCCTGGCTCAGGTGGGCTCCACCTCAGTCTCCCAAGTA  
GCTGGAACACTACAGTCGTGCACCACCATAGCCAGCTAAGATAGTGAGATGG  
TGGCCCCACTGTCTTGCCCAGGCTGGACTCGATTTCTGGGTGCAAGCACC  
[C/G]TTCCCGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGTCAC  
CATTCCAGCCTACTTGTCTTTAATTCTTAAAAATATTAATGTTGAGTTTTGT  
CTCCCAGCATGTGGGAAAGATGTCATCCATTGCTTCTGTTTCTGGAGGCC  
TGGGAGCAAGGAGCCAGGAACAGTATCACGAAGCTTGAGATAATAC  
SG13S60

ATCATTGATGGGCATTTGGGTTGGTTCCAAGTCTTTGCTATTGTGAT  
TTTTTTTTTTTTTTTTTTTTTTTTTAAAGACAGAGCCTCACTCTGTTGCCCAGGC  
TGGAGTGCGATGGCATGATCTCAGCTCACTGCAACCTCCGCCTCTCAGGTT  
CAAGCAATTCTTCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGC[A/G]  
CCCACCACCAGGCCAGCTAATTTTTGTATTTTATAGTAGAGACAGGGTTTC  
ACCATGTTGGTCAGGCTGGTCTTGAACCTCCAGACCTCATGATCTGCCTGCC  
TTGGCCTCCCAAAGTGCTGAAATTACAGGTGTGAGCCACCATACTGGCC  
TAGGCAGTCTTTTTCAAACCTCTAAGACTGTGCTTGTGTCTCAGG  
SG13S419

TGGTATGAGGTAAGGATCCATTTTTTTTCCCATTTGCATAGCCAGTTT  
TTGTAGCTCCACTTTATTTTCTCACTTGATCTGCCATGCCACCTCTAGCATG  
TATCAACATATCATGTATGTGTGCAGCTGTTCTTAACCTCTCAATTTTATTC  
TCTTGGTTACTTTGTCTAACCAGCACTCATACTTTTTAAATTATTA[C/T]G  
GCTACCTTGTAGGGCAAGAATCCTCACTTTTATTCAACTTCTTTTGAAGTG  
TCTTGATGCATATTTTTTCTGATCTTACTTGGCCATATATATTTTGGGGACA  
GATGTGACATCATACCAAGCTTTCTTTGCTTGACATTGTAGATATTTTCTTA  
TTCATTAATGTGCTAAAAATTTGAGTTTGGTCATACAGTC

FIG. 8.3



SG13S61

GTTTCTAACATTATAGACACTAGTTTTAGGCTCTTGGAGGCTAGCA  
GCAATTCTCAGAGGTAATGCAAGCTTCCCCATTTCTTCCCGTAGTCCTGTG  
AAAGACCAGCCACCTCCAGAAGCCTACACATGAGTCTTCTCAGCCATACT  
TTCTGCTTTTCTAATGCCTCTCAGCAGCGTATTAGAAAGGCCATGATCGA  
[C/T]GTACCTGTTACCTTCAGGCTTTGCATAAGGTGTATATGAAACATAAT  
GAATTTTCGTGTTTAGGCTCAGGTCCCATCCCCAGGTTACCTCTTTATCTTG  
GAGACACTTCTGGTCCCATAACATTTAGATAAGAGATATTCAACCTGTACC  
CACCACGTAAGGAGAGGAATAGGTTTTAGAAAGAGGAGTCAGGGAGGCA  
SG13S62

GCATCTATTAAAAGTGATGGTTTTAGTATCCTGTCTCATTTTTTCTC  
TTCCTTACATCATGTATTATAGGTAAACACATGCGCATGTGTGTATTCTC  
TTTTAGACAAAGGATGAGATTACTACTGTTAGCTCAGTTTTTTTTTCCCTAC  
TTAACATCTTTGCTTTTTATTTTTTAGACATATTTCTAAGACTATTAAA[C/T]A  
TTAGACTTACGTAGCCCTTCTGTCATTGTGAAATACATAGTTTACTAACAG  
CTACCATCAAGATAAAGCCTTTATTTAAATAATTAACTTCTTAGTGGAAA  
GCTAAGTAAGCACAGTTTATGGATTTTGGGAATTTTTGCCTTGCATTGTG  
TGATATGGTAAATATTGAGTTTGTTTTTCTCATAATGTTTAC  
SG13S63

GATAACTCAATCCCCTTAAAGGGTGTATCAAGCCATTGATAAGGG  
CTCACTTTGATATAACCATTTTCTGTTATTTAGACACTCTTTCACACTTCCT  
ATTTTCCTCCTGGGGATGGTTTGAATGGATGACACAATACCATATTATAAA  
AGCACTTTACAACTGTAACCTATGTTATAAATGTAATTATTACCTTAA[A/  
G]GTTTTACCCTGTTTCAGATTTGAGTGGAAGTAGTTCTTTACAATACAAA  
ACAACTTATTTTAACTTTTTTGCATTTCAAAGAATGATCAATCCACTTCA  
GGTGCAGCATGGTTTCCAACCCTGACAGCATGGAAGAATCATTATTTAG  
CTTCTAAAAATGTGCAGGCTGTACCCTAGACCAGCCTTGGGGATTAG  
SG13S64

TCCTCTCTCTCATTCTCTCTCTCTCTCTCTTTCTCTCTCTCCTTCTTTG  
CTCCTTCATTCTCTCTCTCTCTCTTTTTTTTTTGAGACAGCATCTCACTAT  
ATTGCCAGGCTGTTCTCAAACCTCTGGGCTCAAGTGATCCTCCTGCCTCA  
GCTTCTGAGTAGCTAGGACTACAGGCACATGCTATGGCAATACT[A/G]TT  
TTAAACATTGTTTTCAAGGCTCCCCAGGTGATTCCAGTGTGGGTCATGTGG  
TAGAGAACCACTGACACAGGCAAACAAAGGATACATAAAGTTGTCTATTT  
AATGGGTAGGTGCAGGTAGTAGATAAGAGTGTAGCCACATAAACCACAT  
GCTTAGTGAACGGTTTTGTTTTGTGTGTATGTGAGGGATTAGCAT  
SG13S65

TTCAGGTTCCATTTAGCACGACAGCAGGGAAGGGACTGTTGGCAG  
AAAAAACTGGGGCAGTGGGATTAAAGACAGACCACACATTCCAAAAGG  
CACCGTGGGAGGGTCAGGGGGCGAGGTTAGGTCTAGGCTTCAGTGTCTG  
GGAGACTCAGTCTTCACAGGGTGACAGCGATCAAGAGTGCAGCTTAGGCT  
GGGT[A/G]CAGTGGCTCATGCCTGTAGTCCCAGCACTTTGGGAGGCCGAGA  
CGGGAGGATTGCTTGAAGCCAGGAGTTTGAGACCAGTCTGACCAACATGG  
CAAAACCCCATCTCTACTAAAAATACAAAAATCAACTGGGCATGGTGGCG  
TGTGCTGTAGTCCCAGCTACTTGAGAGGCTGAGGCAAGAGAATCACTTG  
AACC  
SG13S420

TAAATGATCATTATGTTTCATATTCACACATACAATAATGTACTCAA  
GTTTATTGCTAAGGTAATTCAGAAATCTCCTTATTTTGAAGTGTGCATTTGA  
TATACCTGTTTGGGAATAACTAGTTTCTTATCTTTGACAGAAAATAATTT

FIG. 8.4

GTTGTTTTGTTTTTACTAAAAAAGCATGGTGAAAAATGGCTCCATTTCTA[A  
/T]GAGAGGTAACATAAATATCGCAATTTGCTGGGTGTCATTAAAGTAACT  
CACAAGGGAAAAAATGCAAATTGGTATCTGCTGATGGAGTAAATCTCCGC  
AGAAGTGATGACCCTGAAAGGATCAATATATTAAAGCCCCCTCCCAGCTGG  
TCATTCCAGATTGCAACAATAAAGCATTAAGTGTTAAAACCTCAAGGCA  
SG13S66

CTCATCAAGCCCACCTTTATACTTCATTTCTCCAGACTTCATGTCCA  
GACTGTGGGATGAACAAGTGTTATAAGGTTTTAGAGGCTCCTGTAGGAC  
TAGATGGAAGGCAAAAAAAGGAAATAACCTTTAAGCATGCTCTCGATTCC  
TTAAATCCCATCTGAAAGTCTTAAGGATGTCTTCTCAGTCATACTTATTTG[  
A/G]CAATATTACCTAATTTTCTCCATTAGCCCAAGCTCAGGGGTCTTTCTT  
CTTCCATATTCACATGGGTGCAATGGTTTTCTGAAAGGAAAAACAGCATT  
CTAGGGCAGTAACATTTAATTAATCACAGGTACTTATCAAACCTACAAAAC  
AGGCATTCCAGGAAGTGGGTGTTTCTGTTTGTAATAATTACACTCTCGTG  
SG13S67

TAGGACTAGATGGAAGGCAAAAAAAGGAAATAACCTTTAAGCATG  
CTCTCGATTCCCTTAAATCCCATCTGAAAGTCTTAAGGATGTCTTCTCAGTC  
ATACTTATTTGACAATATTACCTAATTTTCTCCATTAGCCCAAGCTCAGGG  
GTCTTTCTTCTTCCATATTCACATGGGTGCAATGGTTTTCTGAAAGGAAAA[  
C/T]AGCATTACTAGGGCAGTAACATTTAATTAATCACAGGTACTTATCAA  
CTACAAAACAGGCATTCCAGGAAGTGGGTGTTTCTGTTTGTAATAATTACA  
CTCTCGTGACATGCTCCCACTAAAATGTAAGTTCGCTGAGGATGGAGGTT  
TTGGTCTCTTTGCTCTGTGCTGTAACCCCAACACTGCAGCAGGGCCTG  
SG13S69

GCTGCATAGTCTCACTTAGGTGTGGAATCTAAAAAAGTCAAATTA  
AAAAAATGTCAAGCAGAGAATAGAATGGTAGTTGCCAGGGACTCTGGG  
AAGTAGCAGGGGTGGGGGTGGAGGGGAGGGGATGGGCAGAAGTTGGTCA  
AAAGGTACAAAGTTTCAGGTAGACAGGTGTAAGTTCTGGGGATCTATTGT  
ACAG[A/C]GTGGTGACTGTAGTTAATACTGTATTGTGTACTTAAAAATTGC  
TCACCAAAAATGTTCTCACCAAAAAAATGATGTTTGGATATGTAAACAG  
TTTGATTTAATCATTTTGACGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT  
GTATACATCAAAACATCACATTATATACCATATACAATTAATATATACAAT  
T  
SG13S70

GGGGTAAATGCTGACTGCCTGTTCTCTGGACAGGAATGGAGAAGA  
TGGTGCTAGCAGGGTTGCTGTTTCATATGTAGACATTCATGCAGTCACTCTC  
TTTTCAGCACACTTCTTACTTCTGCCCTGGGTTTCAAGTTGCTGACTCTGAGCC  
CAGAAACCTTCTAGGGTTCTGTTAGGTAGATTGGCTTCCACCGTCTTTGC[  
A/G]ACAACCACAGAAAATTCTAGACTGTTTTCTCTTCGGGCTTCATTAGTC  
AACTTGCTTCAGTCTGTCTTGCATCTTCTAAATATTTATAGATCTCTCTCTT  
TTGTTGGAGTGGCAGAAAATGCTAGTTGACCACCCAATATTCAAATTATC  
CTGCCTCCTTAATAACAGAATATCATTGGATGTGGTGGGTAAATAAT  
SG13S71

ATGGAGAAGATGGTGCTAGCAGGGTTGCTGTTTCATATGTAGACATT  
CATGCAGTCACTCTCTTTTCAGCACACTTCTTACTTCTGCCCTGGGTTTCAAGT  
TGCTGACTCTGAGCCCAGAAACCTTCTAGGGTTCTGTTAGGTAGATTGGCT  
TCCACCGTCTTTGCGACAACCACAGAAAATTCTAGACTGTTTTCTCTTC[A/  
G]GGCTTCATTAGTCAACTTGCTTCAGTCTGTCTTGCATCTTCTAAATATTT  
ATAGATCTCTCTCTTTTGTGGAGTGGCAGAAAATGCTAGTTGACCACCCA

FIG. 8.5

ATATTCAAATTATCCTGCCTCCTTAATAACAGAATATCATTGGATGTGGTG  
GGTAAATAATATACCCTAACTTTCCTTGCAGAGAGGGGTGGCCAA  
SG13S72

CAGGGTTGCTGTTTCATATGTAGACATTCATGCAGTCACTCTCTTTTC  
AGCACACTTCTTACTTCTGCCCTGGGTTCAGTTGCTGACTCTGAGCCCAGA  
AACCTTCTAGGGTTCTGTTAGGTAGATTGGCTTCCACCGTCTTTGCGACAA  
CCACAGAAAATTCTAGACTGTTTTCTCTTCGGGCTTCATTAGTCAACTT[G/  
T]CTTCAGTCTGTCTTGCATCTTCTAAATATTTATAGATCTCTCTCTTTTGT  
GGAGTGGCAGAAAATGCTAGTTGACCACCCAATATTCAAATTATCCTGCC  
TCCTTAATAACAGAATATCATTGGATGTGGTGGGTAAATAATATACCCTA  
ACTTTCCTTGCAGAGAGGGGTGGCCAATGAGATGGAAATGAAAGTC  
SG13S73

TGGGATTGAGTTCTTGATTGATTTTGAGCTTGGCCATCATTGGTGT  
ATAGCAGTGCTAGTGATTTGTGTACATTGATTTTGTAACCTAACACTACTA  
AATTCATTATCAAATCTGGGAGATTTTTGAGGATTCCTTAGGATTTTCTA  
GGTATGAGATCATATCATTGGTAGAGGTAGTTTGAGTTTCTCTTTTCCA[A/  
G]TTTGGATGCCCTTTATTTCTTTCTTGCCTGATTGCTCTGACTAGGGCTT  
CTAGTACTATGTTGAATAGAAATGGTGAAAAGTGGGCATCCTTGTCTCATT  
CTAATTTTTAGGGGGAAATGCTTTCAACTTTTCCCCATTCAATTTGATGTTG  
GCTGTGAGTTTGTTCATAGATGATTCTTACTATTTTGAGATATA  
SG13S99

TCTTTTGCCCTGCCTTTCTGCCTTTCTGTCTTTTAATTTGCGGGCTT  
TTGGCAACCACAGCACGGGTCTGGTTTCCTAGGAGTTTCTTTTGTAGGATC  
AAACCGCTAGTTGGCTCTTGGCCCTGTGATAGGGCCCTGGGCTAACTTATT  
GGGAAAATGTTGCTGTAACCCCTGCCCAGAGGTGCCTGTGACATGGGC[C/  
T]GCCATCTTCTCCTCTTCCCTTGGCTTCAGCCCCACCTAGAAACCTGAACA  
AACATTTTCTTGGACATTTTATAAAGTGTGAGTGGCTCCTCATTAGCAAA  
ATACATCCCAGGGAAGTTCAAAAGTGAAAAAAGGCCGTAACTTCTTCTC  
TTCTCAGGGACCTACAGAAAATATGTGGCACCTCGGCAGCCTGGCC  
SG13S382

CATGGATTTTGTTTTCCAAGTGGCAAGATGGCGCCTCCACCTTTGGT  
ATCCTATTTTAGTTTCTGGCAGAAAGAAAGGAACAGGCTAATGGCCCTGA  
TGAGTCTACCCCCTTTTAACAGGAGAAAATTTAAAAAACAAAAACCATGA  
AACCCTTTCCCAGAGGCAACAACCAGAATTCCATTTATCTTTATTGACCA  
[A/G]AACAGACCACATGGTCACTGGTGGTGGCAATGGGAGACTGGGGAGAT  
GAATATTTTAAAGGTGGCATATTCCAGAAGAACAAGTGTGCACTGATTGCAT  
TAATGAACCCATTAATGTGCCAAGGGGAGGTTTACCTATGAGCATGGGCA  
AATTAGAACCCACTCTTGGAGCTGCAGGTGAGCCAATCCCACCTAAACAG  
SG13S383

TGGTGGTGGCAATGGAGACTGGGGAGATGAATATTTTAAAGGTGGC  
ATATTCCAGAAGAACAAGTGTGCACTGATTGCATTAATGAACCCATTAATG  
TGCCAAGGGGAGGTTTACCTATGAGCATGGGCAAATTAGAACCCACTCTT  
GGAGCTGCAGGTGAGCCAATCCCACCTAAACAGTGTGGATGCTACAAGAT  
GG[A/G]GAAGTAAATTGATTCTATTCCATACCCTAACCTCTCTCCAAGATG  
TATTCTTAAATAGAAAGAGGGAAGACAGAAGAAAACATCCAGAATATATT  
TTTATTGTCTTTTACTTCTTCAGTGCATTTTAGATCAGTGCTTCTCAATCTG  
GCAAGGGGCATGCAGGAGGATGTGAGTTTTATCAGGAAAACACTACACAAC  
C

SG13S384

TGAGCCAATCCCACCTAAACAGTGTGGATGCTACAAGATGGGGAA

FIG. 8.6

GTAAATTGATTCTATTCCATACCCTAACCTCTCTCCAAGATGTATTCTTAA  
AATAGAAGAGGGAAGACAGAAGAAAACATCCAGAATATATTTTTATTGTC  
TTTTACTTCTTCAGTGCATTTTAGATCAGTGCTTCTCAATCTGGCAAGGGG  
C[A/G]TGCAGGAGGATGTGAGTTTTATCAGGAAAACCTACACAACCCCCCA  
ACCACAATGCTACCCCCACTCCTGTGGACCTTCTTTAAGAGAGACTCACTA  
TTATAGATGGAGTTGATACGATTTTAAGAGAGGCCATATATTATTGCTTT  
CTGTCTTGAAAACTTGTGATTTTTCTGTATTGTGCTACTGCCAAAGAGA  
SG13S381

GGGTTGCAGTGAGCAGAGATCACACCATTGCACTCCAGCCTGGGTG  
GCAGAGCGAGATTCTGTCTAAAAACAACACCGTATTTGGGGCATGCTGA  
TACTAAAAAATTATTCATTGTTTGTCTGAAATTAATAATTGGGGGC  
CCTGTATTTTACTGGGCAACCCATTTGCAATATCAGCAACAATCTCTTATT[  
C/G]AGACCACTGATTAAGTGTGCAAAATTTGAATCTCTGAACAGTACCTA  
TGTCCTTGATATCTTAAATTAATGAGTGTCTTAGACACTCAAAGCAGGAGG  
AAGCATTATGGCAGATGTTTGAGCCCCAGAGATGTCCATGAGCACAGCAT  
AGAGCTCAGAGCCTTCTTTATTATTTGCTTCACGACAGAGCAAAGGACT  
SG13S366

CATTTGCAATATCAGCAACAATCTCTTATTCAGACCACTGATTAAG  
TGTGCAAAATTTGAATCTCTGAACAGTACCTATGTCCTTGATATCTTAAAT  
TAATGAGTGTCTTAGACACTCAAAGCAGGAGGAAGCATTATGGCAGATGT  
TTGAGCCCCAGAGATGTCCATGAGCACAGCATAGAGCTCAGAGCCTTCTT  
T[A/G]TTATTTGCTTCACGACAGAGCAAAGGACTGCAGCAGGTTGACTGAT  
ATAAAAGTTTTACCATGTCTCACAGCAGGCCTTTGCTCAAGTTTCCAGTAA  
GGATATTGTATCATTCTTGCTGCAGTACTTGTAATCCACTTACACTGC  
CTGCTGTTGAGTCATTTGTTTCGTCTTGAGTAGCATGTCATCCTTGTTT  
SG13S385

TTGCAGTTCTCATTGCTGGGGAGTCTAAACTGGAATAAAACACCCA  
CTATCTCCATCAGGCTTGCACTAGAGCCCAGCTCTAGCTGGAGAGAAAGA  
AGCTAACCCGCACAGACACAGGACTGTAGGCAGGGAGCATCCGGGGGTA  
TTTGGGTCCTGGCTCTGATGTGCCTAAGGCCAACTTCTCTCTGGCCATGCT  
GG[C/T]GTGCATGAGCTCACTAATCTTCCTTTTTGCCTTCCATTTTCTCAA  
TCCTGACTTAGCAAAGGTTGGGCAAAAGAGACTCTGTGTGAGTTCGAGCA  
AAGCCTGAGATGCTGGATTTTCCAAGATACGAGAAGGGGCTGGGGGCTGG  
GTGAACTGGTGGTGGAGGAGGGAAGGATTAATTTCCCAAGGAGGGGAAG  
GG  
SG13S386

GAGAAAGAAGCTAACCCGCACAGACACAGGACTGTAGGCAGGGA  
GCATCCGGGGGTATTTGGGTCCTGGCTCTGATGTGCCTAAGGCCAACTTCT  
CTCTGGCCATGCTGGCGTGATGAGCTCACTAATCTTCCTTTTGCCTTCC  
ATTTTCTCCAATCCTGACTTAGCAAAGGTTGGGCAAAAGAGACTCTGTGT  
GA[A/G]TTCGAGCAAAGCCTGAGATGCTGGATTTTCCAAGATACGAGAAG  
GGGCTGGGGGCTGGGTGAACTGGTGGTGGAGGAGGGAAGGATTAATTTCC  
CAAGGAGGGGAAGGGGCCAGGACATCAGGCCCCGGGGACTTTGAAGAGA  
GGGTCGTGGGTAGGAGGTAGATCAAGTGGAGTGACACAAAGGTCAGGAA  
AGAGG  
SG13S1

CATGCCTCCTACAAATTTGACCTGGGCCAGGGCCATGTTCCGGTGG  
TTTTTAAGAACCGAGGCTCCAGAAAGCAGTATTGGGCAGCTAGAGTGGCC  
CCAGGATCTATATCAAACCTCTACCTGTTTCTGAACCAAATTTCTTCTAGAA  
TTTTATTCCATAAATCTGAATTATGGTGTGCACTCCTAGCATACACTAAA[

FIG. 8.7

G/T]GAACTCTCTGCCTTGCATTAAATAACAGGAGTTACCCCTGGAGGTAA  
CTCCTAGCCCTGGCTCTTTAGAGAACAGATGCCGAATAGGCATTAGGGGA  
TGTGATGGATGTGCTAACTTTCAAAAAAAAAAAAAAAAAAAGGCCTGAG  
CTGAGTGCTCAGAGATTCACAAAAGCTGACAGCATCTCTCTGTTCCATTG  
SG13S2

CTTTGGAGCCTGGCAGCCTGGCTTTGAGAACCGGGCTTTAACTTGT  
CACATGACTATGGCCAAGTTCCTGGGGCTCTCCAAGCTTCACTTCCTCTGT  
AAAAAGGGCAATAATATAATACCTGTCTTATTGGGTTTTGTCCATGTTAGA  
TGAGACATTGGGTACAAAGCACTTGGTCCCGTGCCTGGCACATTTACTGC[  
A/G]CTTAATGTATGATAGTTTTCTTATTATTCTAATAAACAATATGGCTTTG  
GGAGTATAGTTCTGCCACATTGCAGTGGCCAGAGTGAAGGTGGTGAAGTGC  
CTTCTGGGGCCCTGGGAGTCAAGGTTATCCGCATGCCCTTTCTTGCTTGCT  
CCTCAGTGTGGCTGCCTCTATGTCCACACCATGCAGATGCAACAGGT  
SG13S367

ACATGATCATCCCCTTGGGCTTCTGGTTTTTTTTCTTTCAGGACCTT  
ATTTTCAGGCAAGTGGCCTTTGACCTCTAAGGCTGTCTTTCTAGCTACC  
GAATCCAGCATTCAAAGTGATGGAAATATGTATATATAGTAATAGTAAAA  
TATCAGCACTTAATGGCCTGATAAGAATGTCAGTCAATGCTGAGTTTGG[  
A/G]CCAACATTTGCCTGCTCCTGCCATTGAGCCCGGGCTCCCCTCCAGAGC  
TGAGCTGCTGCAAGGGATCTGAGTAACTAGGGCTGTGTCAGAGTGGCGAT  
GACAGCCACCACATGCTAAGGAAGAGATCCCCAAGGACAAGGAGAATCC  
CACGTGGAGCTACTTGCTTCTTTGTCAGTCTTGTTTTCTTATTTCAAA  
SG13S388

CCGAATCCAGCATTCAAAGTGATGGAAATATGTATATATAGTAATA  
GTAAAATATCAGCACTTAATGGCCTGATAAGAATGTCAGTCAATGCTGA  
GTTTGGACCAACATTTGCCTGCTCCTGCCATTGAGCCCGGGCTCCCCTCCA  
GAGCTGAGCTGCTGCAAGGGATCTGAGTAACTAGGGCTGTGTCAGAGTGG  
C[A/G]ATGACAGCCACCACATGCTAAGGAAGAGATCCCCAAGGACAAGGA  
GAATCCACGTGGAGCTACTTGCTTCTTTGTCAGTCTTGTTTTCTTATTT  
ACAACCTTCTAAAACACAATCTCTCAACCTCTATTGTTAGCTTGCATTTT  
CAATCATGAGCACAGCTTTACCTGGCTCCATGCTTTGATTGACTCTACC  
SG13S10

TCTTATTTCAACAACCTTCTAAAACACAATCTCTCAACCTCTATTGTT  
AGCTTGCATTTTTCAATCATGAGCACAGCTTTACCTGGCTCCATGCTTTGA  
TTGACTCTACCTGCCAACACTGCAACAACAGGGAAAGGGACACCGGCCTC  
ATACCATTAGATGGTGTGTAGCCTGGGCATGAGGATAATTAAAACTCCC[  
A/T]AGGGGATTTTAAACATGTAACACAGTTTGGAAACCATTGATGTAAGAT  
CTTCTTACTCAACATGTGCTCCAAGGAGCTGTTGTATCAGCTTATCAGAAA  
TGTAGATCAGGCCGCACTTGGACCTGTAGAATCAGAATCTGCATTTTATCA  
GATTCCGACATTATTTGTATGAACATTAGCTTTTGAGAAGTGTTGCTT  
SG13S3

CTTTTGACACCAACTACAAGTCAAGGGGTTCCCCAAACCACCCTGA  
GTTGTGATAATTGCTGGGAGATCTGACAGAACTCACTGAAGGTTGTTAT  
ACTCATGGTTGTGATCTCTTATAGGGAGGGAATACAGATTAAAATCAGCC  
AAAGGAAGAAGCACACAGCACAGAGTCCAGGACAGTGCCTGACATGGAG  
CCC[C/T]TACGGTCTCTCCCGTGGAGTCACGGACAGCGCCACTCTCCTGG  
CATTGATGTGTGACAACACACAGGGAGTGTTCCCCACCAGGGAAGCCTTG  
GTGTCCAGGGTCTTTACTGTGGCTCTGTACATGAGCACAGCTGACTGCCC  
ATGCGGCCGATCTGTTCCCAGACTCTCCACCGCTACACATCACTCACAGTC  
C

FIG. 8.8

SG13S368

GTGGCTCACAGAACTCAGGGAAACACAGCTACCAGTTTATTGCGA  
AGGACATTTTAAAGGATAAAAGTAGGCAGATAAAGAGATGCATAGGGCG  
AGGTGTGGAAAGGTCCCTAGTGCAGGAGCTTCTGTCCATGTGGAGCGGGG  
GTGCACCACCCTCTCAGTACATGAATGAGTTCTCCTTCACCTGCCTATCAG  
CCT[C/T]TACATGTTTACAGCTCCCCAACCCAGTCCTCTTGGGTTTTTATGGAA  
GCTTCAAGACACCCACATTCTTTCCCCAGAGTATAGGGCAAGACCTTCTCT  
GGGGAGGGTTTTAAGACCCACAGTCAGAAAGGTGGGGTGGGGTCAAGAT  
TAGAGTCCTGCCTTGACGGGCAGGTGAAAGGGGTAGGGGGAGTAGGTGA  
GAA

SG13S369

CGGGGGTGCACCACCCTCTCAGTACATGAATGAGTTCTCCTTCACC  
TGCCTATCAGCCTCTACATGTTTACAGCTCCCCAACCCAGTCCTCTTGGGTTT  
TTATGGAAGCTTCAAGACACCCACATTCTTTCCCCAGAGTATAGGGCAAG  
ACCTTCTCTGGGGAGGGTTTTAAGACCCACAGTCAGAAAGGTGGGGTGGG  
G[G/T]CAAGATTAGAGTCCTGCCTTGACGGGCAGGTGAAAGGGGTAGGGG  
GAGTAGGTGAGAAAAATTCTGTTTATTTTTTCTTTTTTTTTTGAGACGGAG  
TTTCACTCTTGTTGCCAGGGTGGAGTGCAATGGCACAATCTCAGCTCACT  
GCAACCTCCGCCTCCCAGGTTTAAGCGATTCTCCTGCCTCAGCCTCCCC

SG13S370

ATGAGTTCTCCTTCACCTGCCTATCAGCCTCTACATGTTTACAGTCCC  
CAACCCAGTCCTCTTGGGTTTTTATGGAAGCTTCAAGACACCCACATTCTT  
TCCCCAGAGTATAGGGCAAGACCTTCTCTGGGGAGGGTTTTAAGACCCAC  
AGTCAGAAAGGTGGGGTGGGGTCAAGATTAGAGTCCTGCCTTGACGGGCA  
[A/G]GTGAAAGGGGTAGGGGGAGTAGGTGAGAAAAATTCTGTTTATTTTTT  
CTTTTTTTTTTTGAGACGGAGTTTCACTCTTGTTGCCAGGGTGGAGTGCA  
ATGGCACAATCTCAGCTCACTGCAACCTCCGCCTCCCAGGTTTAAGCGATT  
CTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCGTGTGCCACC

SG13S4

TCTTCATTCCACAAAGCTCAGTGTCAAACATGGGGTTTACACTGG  
AAGCTGAGGTCACATCAGTAGCCGGGATCAGGGTCGCCCTAGCTGCCCAA  
TGCAGCTCCCAGGCCTCCTGTAAAACCTTGACCTTTGAGGTCATGACAGCC  
CTCTCCTGCTATGCTCATAGCTGACCACTGAACTCCTGGACACTCCCTCCC[  
G/C]CAAGTTACAGAGAATGTGGGCACATGCCTTACAGTCTTCCCTTGATC  
CAAACACTGCCTTCATCTTGAGTGACAGCAGCATCTTTTGGATGTCTTGG  
CCTGTCTAGCTTTATTTTTTTGTGTTCTGCCATCAAGTTGCTACTTCTGTTG  
CCATCGTGCCTGTCAGCGCAGTGACGGCTGTGGTGAAATCCCACGA

SG13S5

TATTTTTTTGTGTTCTGCCATCAAGTTGCTACTTCTGTTGCCATCGTG  
CCTGTCAGCGCAGTGACGGCTGTGGTGAAATCCCACGAACCTCAGGCATCA  
CACTGACCGGGTCTGAGTCCTGTCTCAGTTGTCAGCTAGTTGTGCAATGAA  
GGGAAAGGGACCTACACTTTCCAAGCCTCAATTCACTCATCTATGGCAT[G  
/T]GTGACAATAATGGAGGTTGATTTAAAGTCCTTTGTAAGAATTAAGAGTT  
ATAATAGACATAAAGTGCTGTATCTGGTATACCTAGAAAACATTCCATAA  
AAGTTAGTAATTGTTGGTCATGTAATGATGACTCTCTAGGCTAGGATTTC  
GCTTCATTGCATGCACATGGTGCACCTCACAGGGCGTGACCTCTCTCT

SG13S389

GGTATACCTAGAAAACATTCCATAAAAGTTAGTAATTGTTGGTCAT  
GTAATGATGACTCTCTAGGCTAGGATTTTACAGCTTCATTGCATGCACATGGT  
GCACTCACAGGGCGTGACCTCTCTCTGTCTCAGTAACCTCATCTGAGGACC

FIG. 8.9

GGGATAATCATACCGCTTCAAAGGGATGTCATAAAGATTAAATAATATGT[  
A/G]TAAGGCTGCTTGCATTTAGCTGCATTCAACAAATATTTCTGTATCTTT  
CTCCTCATTTCTCCTTACTTTCTTGCTTATTATCTGCTCTAGGTATAGATTTC  
AGAGAACTAAGCTTGTTACAATCCTTCATAAAATAACCAGGTTGGTTAGG  
GCATTTCCAAGAGTCAATACTGTTTAGTGACTATTCTCTGTTTAAT  
SG13S90

AAGGCTGCTTGCATTTAGCTGCATTCAACAAATATTTCTGTATCTTT  
CTCCTCATTTCTCCTTACTTTCTTGCTTATTATCTGCTCTAGGTATAGATTTC  
AGAGAACTAAGCTTGTTACAATCCTTCATAAAATAACCAGGTTGGTTAGG  
GCATTTCCAAGAGTCAATACTGTTTAGTGACTATTCTCTGTTTAATCT[A/C]  
TTTTGATTGTCCAGGGTCATCTTTTGCTATGTCATAGGTTGTTGGCTTCTTC  
TAGAGAAGTGAGACGATGGACAAGTTCCAAGTGAGTGAGGCGACTGGTC  
AGGATATTCCGCTGAAAACTCATGTCAGTTCTAATTCGTGATTGTAATTC  
AATCACAGCCTGAGAACAGTAGGACTGTAGTTCAAATGCTCTGTT  
SG13S390

CCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGG  
ACTACAGGCACATGCCACCACGCCCAGATAATTTTCGTATTTTLAGTAGAG  
ACGGGGTTTCCCCTTGTTGGCCAGGGTGGTCTTGATCTCTTGACCTCATGA  
TCCGCCCACCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACC[  
A/G]CGCCCGGCCTCTAGAGGATAATTTTAAATGTGCTTTTGCATTTGGAA  
AATGTGATTGGCATTTTTTTCTAATTTTCTAATATGATACGCTGTCCGATGC  
TATGGATTACTTAAACCCTCTGGCTACCTAGAAAGATCTTTAAGTGGTTCT  
CAACAAGCTTCATACGCAATGTAAATTGTATTATCTCTCAGGATGT  
SG13S6

TGTGATTGGCATTTTTTTCTAATTTTCTAATATGATACGCTGTCCGA  
TGCTATGGATTACTTAAACCCTCTGGCTACCTAGAAAGATCTTTAAGTGGT  
TCTCAACAAGCTTCATACGCAATGTAAATTGTATTATCTCTCAGGATGTGT  
GAGAACATCTGTTTTTCTTCTAATGCAGTAAACATATAAGGGTCTCTTG[A/  
G]GATATCTTTTAAATAGACTTAATACAACATTCAGGAATGATAACAAAAT  
ATAATCACAGTTGTAAGGGAATGTGAGCATTTCATATTAATAACATTGGA  
ACCTTATGTTTAATACAGTGTTAAAAGTTGACAAACATGTAGGAGTCAGA  
AAATTCAATTAAAATTATCACAGTAATATGAATTTAGCCACATCCTGT  
SG13S391

ACTTAAACCCTCTGGCTACCTAGAAAGATCTTTAAGTGGTTCTCAA  
CAAGCTTCATACGCAATGTAAATTGTATTATCTCTCAGGATGTGTGAGAAC  
ATCTGTTTTTCTTCTAATGCAGTAAACATATAAGGGTCTCTTGGGATATCT  
TTTAAATAGACTTAATACAACATTCAGGAATGATAACAAAATATAATCAC[  
A/G]GTTGTAAGGGAATGTGAGCATTTCATATTAATAACATTGGAACCTTAT  
GTTTAATACAGTGTTAAAAGTTGACAAACATGTAGGAGTCAGAAAATTCA  
ATTAAAATTATCACAGTAATATGAATTTAGCCACATCCTGTGTTAGTTATG  
AAATCCATTTAACACCACAAACAGTAATATTTTATAGCCAGTTTATTCA  
SG13S392

CATTTAACACCACAAACAGTAATATTTTATAGCCAGTTTATTCAAAA  
GGAAAACAGGAACTAAACCACTTTCATGCAATATATACTCTGTTAATGTG  
GTCAGGCTAATTTTGCTGGGGGAAGGAACTTAACTTTTGAATATTTGAATG  
CCCAGTCATTTAATCTGAATATCCTATTTTCTTGCATGTTGCAAAAATTTTT[  
G/T]TCAATAAAAGGCAGAAAAAGAAATCTCTTCTCCATGCTCATCCCTAA  
GAGAATGGGTTGTCTGTACCCTGAGAGCATTATGAGAGGGGACAACCAC  
TTTTCTAATTTTCTTCCCCTTCTCTGTGGGCACAAATGCTCTTTGGTTGA  
AAGAGTTGTAATTCAGTCCCAAGATGAGGTGTGGTTACTGCATCCCTA

FIG. 8.10

SG13S371

TCAATCCATGCTCCACACTGCAGCCAGAGTGCTCTACAATGCAAAT  
CCATTTGTGAGACTCCTCCTCTTAAATCCTCAAGTGGCTTCTCTTTGCCCC  
CAGGATCATTTTGAACTCCTTAATGGAAGAGGCATGGCCCTTTGGGATG  
TGGTTCCCAACCCCTCCCACATCATCTTTCAATCAGATTTCCCACTAA[A  
/G]TGGAATTTTTTCAGGTCCTCAACTTTATGGTGACTTTCTCTTGCTCAGG  
ATCTTTGAACATACTGTTTCTTCTTTCTTTGTATTTGCCAAGACAACACT  
TCCTCTGGTAAGATTTTCTGACATCCTCTATAAAAAAAGATTGAGATAGT  
TGACTACCCAAAATGTTTCCCATTCATTCCAAGCTCTATTCAAG

SG13S372

AACACTTCCTCTGGTAAGATTTTCTGACATCCTCTATAAAAAAAG  
ATTGAGATAGTTGACTACCCAAAATGTTTCCCATTCATTCCAAGCTCTATT  
CAAGGCAGTAAAGTGCCCGGCTGACAGATTGCATTCCTCATCTTTTCTGAA  
GCTAGCAATGGCCATGCAACAGCATTCTGGCCAATAAGATAGAAGTCGAA  
[A/G]TTGAAGGGTGGGATTTCCAAGAAAGCTCGTTGAAGACATAATTCCTC  
ATTTCACTTCTTACTCTTTCTCTTTCTGCTTCCTAAAAATGCGGTGCAGATG  
GCAGACACTTCAAAGCTGTCTCAGGCAATCAGGTGATGTTAAGGCAGAAA  
CCAGCTTTATGATGGGTAGAACAGGAAGAAAGAAGGCACCTATGTTCT

SG13S393

CCTACAAATCTCATGTTGACATTTTATCCCTAATATTGGAGGCAGG  
GCCTAGTAGGAGGTGTTTTGGTTCATAGTGATAAATGGCTTGGTGCCGTTCT  
CACAGTAACGAGTGAGTTTTTATTCTAGTGGTTCCTGCAAGAACTGATTGT  
TAAAGAGCTTGGATCCTTCCACCCCTCTCTCACTCTTGCTTCCTCTCTC[A/  
T]CACCTTGTAATCTCTACAAGCTCTTCACCTCCCCTTCTCCTTTTGCCATA  
AGTGGAAGATTTCTGAGGCCTCACCAGAAGCAGATGTTGGTTCCATGCTT  
CTTGTAACAGCCTGCAGAACCATGAGCCAAATCAACTTCTTTTCTTTATAAT  
TATCCAGTCTCAGGTATTCCTTTATAGCAACACAAATGGACTAAGA

SG13S373

GTTGTTTCCAGCTTTGAACTATTTTGAATCCTAAAAGACTGCCAGTT  
TTGAATGAGACCCCAACAATGAATGTAGGCTCTGTATACAAGTTCAGG  
CTGCTGGGCAACTTAGGCCTTAAGACACAACCTCTGCCACTTAGGCCTTAA  
GACACAACCTGACATGATGGTGCTTAAAGTGGCTGTGATGGAAAAGGAGG  
CT[A/G]TTTGGAGCCTTTGGAGTGCCTTTATAGGTGAACCCCAAGCATAGCA  
CCTAATGATTTGGAGCAAAGCTGTGTCAATCCCCAAAGATAACTATTGCGC  
TTTTGAGAAACATCTTCTAGCTACTATCAATAATAAACACAGAATGCATC  
ACCATGGGCCACCGTGTGTCTTTTGACCTGAGTTTCCATTGTGAACAAGA

SG13S374

AACTCTGCCACTTAGGCCTTAAGACACAACCTGACATGATGGTGCTT  
AAAGTGGCTGTGATGGAAAAGGAGGCTGTTTGGAGCCTTTGGAGTGCCTT  
TATAGGTGAACCCCAAGCATAGCACCTAATGATTTGGAGCAAAGCTGTGTC  
ATTCCCCAAAGATAACTATTCGCCTTTTGAGAAACATCTTCTAGCTACTAT  
C[A/G]ATAATAAACACAGAATGCATCACCATGGGCCACCGTGTGTCTTTT  
GACCTGAGTTTCCATTGTGAACAAGAGTCATTTGATCCAAGGCAGAAAGT  
TGGGTGCACACAGCAGTGTTCATCATCAATGGAATATGAGATTGGGCC  
CAAGTAGGTCCTGCAGACACAAATAAGTTGCAAGAGCAAGTAGTACAGG  
CG

SG13S375

GAAAAGGAGGCTGTTTGGAGCCTTTGGAGTGCCTTTATAGGTGAAC  
CCCAGCATAGCACCTAATGATTTGGAGCAAAGCTGTGTCAATCCCCAAAG  
ATAACTATTCGCCTTTTGAGAAACATCTTCTAGCTACTATCAATAATAAAC

FIG. 8.11



ACAGAATGCATCACCATGGGCCACCGTGTGTCTTTTGACCTGAGTTTCCA  
[C/T]TGTGAACAAGAGTCATTTGATCCAAGGCAGAAAGTTGGGTGCACAC  
AGCAGTGTTCATCATCAAATGGAATATGAGATTGGGCCCAAGTAGGTCC  
TGCAGACACAAATAAGTTGCAAGAGCAAGTAGTACAGGCGCTTGGCCTGG  
CCAGTACTGTTGCCAAGTTGACTGCTTCCCCTCAGTCTGCATCTGTGGCTT  
SG13S376

CCCCAAAGATAACTATTCGCCTTTTGAGAAACATCTTCTAGCTACT  
ATCAATAATAAACACAGAATGCATCACCATGGGCCACCGTGTGTCTTT  
GACCTGAGTTTCCATTGTGAACAAGAGTCATTTGATCCAAGGCAGAAAGT  
TGGGTGCACACAGCAGTGTTCATCATCAAATGGAATATGAGATTGGGCC  
CA[A/G]GTAGGTCTTGCAGACACAAATAAGTTGCAAGAGCAAGTAGTACA  
GGCGCTTGGCCTGGCCAGTACTGTTGCCAAGTTGACTGCTTCCCCTCAGTC  
TGCATCTGTGGCTTCATGGGGAGTTTCTATGACCACTTGATGGAGGAAA  
AAACAAATTGGAGCATAGTTTATAGTGCTGGTACTACCCAAAGTGGCTAG  
CT  
SG13S394

GTCCGTGAGTTACAGATCTACACAAAATCACAGAGAGTGGTTAATC  
GTTTAGTCTGATGGTCAGGGACTTCCAAGAGACATGATTAGAAAACCTGGT  
GACAAGGAGTCCTGGGGAAGAGGCATATGGATACCTCTGAACACACACA  
AAACATGAGAATATGTATCCCATATGAATGTAAACCAAGAGCAGCCACA  
ACA[C/G]AAGAGGATTTTAAAATCAGCTGAATAAGATGATTCAATTCTGACA  
GCATCAGCTAGTCTCTTTCCCCAGCCACTGTTGCCCAGTGGGCTTACATAT  
ATCATGGCCATGGGGGCAGGGCTATGTATGGACACAGCAACATGAATTTT  
CACTCATCAAGGCCAATTTGGCTCCAGCCATTGCTGAGTGCTCAGCCTGCC  
A

SG13S25

ACATGATTAGAAAACCTGGTGACAAGGAGTCCTGGGGAAGAGGCAT  
ATGGATACCTCTGAACACACACAAAACATGAGAATATGTATCCCATATGA  
ATGTAAACCAAGAGCAGCCACAACAGAAGAGGATTTTAAAATCAGCTG  
AATAAGATGATTCAATTCTGACAGCATCAGCTAGTCTCTTTCCCCAGCCACT  
GTT[A/G]CCCAGTGGGCTTACATATATCATGGCCATGGGGGCAGGGCTATG  
TATGGACACAGCAACATGAATTTCCACTCATCAAGGCCAATTTGGCTCCA  
GCCATTGCTGAGTGCTCAGCCTGCCAAGATAGAAATCTACGCCAATATGG  
CACCATTCCCTGGGCTAGAAAACCAACTGGTGGAAGGTTGATTACATTGG  
ACC

SG13S395

GGGAATACAATGGTGGTTCCACTAAACTGACAGCTGAGTTTGCCAT  
CTCCTCGTGCCAGTGAATACACAAGCAAGGAAGGGGGTTCTTTCTCACC  
TAGGGTGACTGATCCTAATTACCAAGGAGAAATTGGACTGCCACTTCACA  
ATGAGGGTGAGGAGTATGTACTCTATGTGTCTGTGATTAATGTCAATAGA  
AA[A/G]TGACACCAACCTAGTACACAGAGGACTGATCATGGTCCAGGCCC  
TTCAGGAATGAAGATTTGAGTCACCAGGCAAGGAACTTGGACTCACTGAG  
GAGGGCATATTCCAAGGAGAATATTTTATCTATGTCCATCTATGTCCATCT  
ATATTCCATCTGTGTTCCCCTTGAATTCCTATTCATGAACATGGGGAATT  
C

SG13S396

TATAGAATGAGTAGTGGAAGGTAGTTATAAATGTAAGTCAAAAAC  
CACACAACCAATTTGAGAAATGAGGAAGGTAATAGTGTTGAATATGTCTT  
CTTTATCTTGATATAAATGTATTTGTGCATATATTAACCAGTTTATTTATTT  
ATTATTATTTTTTGAGATGAGCTCTCGCCATGTTGCCCAGGCTGGTCTTGA[

A/C]CTCCTGGGCTCAACTGATTCTACCATTTAGTCCTCCGAGTAGCTGGGA  
CTACAGGCATGCACCACCATACCAGCTGACCAGTTTTTTTCCTATTCCTCT  
ACTTAATTTCTCTACTATACAACATAATATGTGTTAATGGTAGTTAACTTT  
ATATCTCAGTATTAAGTCACAAGATATCAAAAAGGGAATGCGACTTA  
SG13S397

ATGTCTTCTTTATCTTGATATAAATGTATTTGTGCATATATTAACCA  
GTTTATTTATTTATTATTTTTTTGAGATGAGCTCTCGCCATGTTGCCAG  
GCTGGTCTTGAACCTCTGGGCTCAACTGATTCTACCATTTAGTCCTCCGAG  
TAGCTGGGACTACAGGCATGCACCACCATACCAGCTGACCAGTTTTT[C/T  
]CCTATTCCTCTACTTAATTTCTCTACTATACAACATAATATGTGTTAATGG  
TAGTTAACTTTATATCTCAGTATTAAGTCACAAGATATCAAAAAGGGAAT  
GCGACTTAGTTACAAGCAGAATGAATATCACTCAAAGATGAATAAAGAG  
AAGAGGGTGTAGTGCATTTTCTGTTGGATGAGAGAAAGTTTCATTGTT  
SG13S377

GCAGTGGCGTGATCCCAGCTCACTGCAATCTCTGCCTCCTGGGTTC  
AAGTGATTCTCCTGCCTCAGCCTCCCGAGGGGCTGGGATTGTAGGCGTGC  
ACCACTATGCCCATCTAATTTTTGTATTTTAGTAGAGATAGGGTTTTGCC  
ATTTTGGCCAGACTGTCTTGAACCTCTGACCTCAGGTGATCTGCCTGCCTC[  
A/G]GCCTCCACAGTTTTGTGATTATAGGCATGAGCCACCGTGCCCGGCCT  
TAACCTTTGTTTTCTTACACAACACACTACGTGATGTTTTCCACATGCATG  
GGTCATTTGCTTCATTTACGTACAAATGCATAAGCAATATACTGTGTGGTG  
TGAGTTTGTGATGGGAAAAGGAAGAAGTTTTGCGGATACTACACTGG  
SG13S189

GCCAGGCTGTTCTCCAACCTCTGGACTCAAGCCATCCTCTAGCCT  
CGGCCTTCCAAAGTGCTGGGACTATAGGCGTGAGCCACGGTGCCAGGCCC  
TTGACCACATTTTAAACCCCTCTGAACCTCAGTTTCACTTTCTGGGCAATG  
GGAGGGGGGTAATTTGTCCCTCAGAGGGTTGCACTGAGGGGCAAATGTGA  
G[C/G]CTCTGGGTACAATGCCCAGTACAGACTAGGTCCCCACGACACAGCC  
GCTCAGCGGCTCCGGATTCTGGGCTGCTCTGGACTGCGGCCAGGCGGTCT  
TCTGCGGAATCCGGGCAGGCAGGGCGGGCTGCGCTCCCCTCCCCGGCTC  
TCCCGGTGCCCTTGTCTTTTTGTTCTGTCTCAGCAGCTCTCTATTAAGAT  
SG13S100

TTTTGTTCTGTCTCAGCAGCTCTCTATTAAGATGAATGGCATTTC  
AAAGGCTTCACCTCTGATAAGTGTTCTCTGCAGCTGCAGCCAGAATCTTA  
ATGTGCGCGCTGTAATTTAATGGCCGTCTCGGCTATTAACACGCTCTTCTC  
GGGTGAAGTGGAATCCCTCCATCCCCGGGCCTCTGCACGTGCTCTGCGC[A/  
G]CTGGCTGGGGGTGACTCCAAGGAGCTCAGAGCGGGGTGCCCGGCACCT  
CTCGCCAGGCGCCTTTCGACCTTCTAAAGCGCGAATGGCTGGACTTTTCTC  
CCATGTGTGGGGCCCCAGAAGGTGTGGGGCCCCAGAAGGTGTGGGGTCCC  
TGCGTTCCACGGAGCCCGGAAGGTTTCCAGTGATGGTGGGGGCTGACC  
SG13S398

GGAGCCCGGAAGGTTTCCAGTGATGGTGGGGGCTGACCACGTTGG  
TCCCCGTGGGTGCTGTTTTTCATGTGCCGGCAGATTGGGATGAGTTTAAAAG  
ACAGAAGCGTGTAGGATAGAGAACTTCTTTAAAAACTGGAAATTTTAAT  
CTGGGGATTATAACTATTGGACAGTCAAGTGCAAGAGTGAATACACTTCT  
CA[C/G]TCCCTCCTCCCAATTTTTATTTGCGGGATTAGTCAGTCCCCCTCTG  
CCACATGATAATTGTGAGAATAACAGGGTCTTCATTCTCCTGCCATCTGG  
TTGACCTCTCCAAGAATGGACACCCGGGCAGCCTGGGCCAATGAGGCTGT  
CCTAAGAGTTTAGATGAGAGAAGTCAGTCTTTGACAGGTGATGGAAGCTG

FIG. 8.13

SG13S94

CAGTGATGGTGGGGGCTGACCACGTTGGTCCCCGTGGGTGCTGTTT  
TCATGTGCCGGCAGATTGGGATGAGTTTAAAAGACAGAAGCGTGATAGGAT  
AGAGAACTTCTTTAAAACTGGAAATTTAATCTGGGGATTATAACTATT  
GGACAGTCAAGTGCAAGAGTGAATACACTTCTCACTCCCTCCTCCCAATTT  
[C/T]TATTTGCGGGATTAGTCAGTCCCCCTCTGCCACATGATAATTGTGAG  
AACTACCAGGGTCTTCATTCTCCTGCCATCTGGTTGACCTCTCCAAGAATG  
GACACCCGGGCAGCCTGGGCCAATGAGGCTGTCCTAAGAGTTTAGATGAG  
AGAAGTCAGTCTTTGACAGGTGATGGAAGCTGTAAAATGTAAAACCTCCA  
SG13S101

TAAGAGAAGCTGAGAGAGAGCGAGAGGAGAGATTGGAAGAAAGA  
CAGAGACAGAGGTAGAGAGAAGGGAAAGAGAGAGAGAAAAGGGACAGAA  
GAGAGAGAAAAAAGAGGGGGCCGGGCGCGGTGGCTCACGCCTGTAATCT  
CAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGAGATCGA  
GACCATCC[C/T]GGCTAACACGGTGAAACCCCCGTCTCTACTAAAAAATAT  
AAAAAAAATTAGCCAGGCGTGGTGGTGGGTGCCTGTAGTCCCAGCTACTG  
AGGAGGCTGAGACAGGAGAATGGCGTGAACCCGGGAGGCAGAGCTTGCA  
GTGAGCTGAGATCGCGCCACTGCACTCCAGCCTGGGCAACAGAGCAAGAC  
TCCGTCTCA

SG13S95

TCCACCAGCAGCTTTTCTGAGTCTCCAGCTTGCAGATGGCAAACCA  
TGAAACTTCATGGTGTCCATGAGCATGTGAACCAATTTCTATTATAAATCT  
GCAATATATATATATGAGGAGACTTATTTATATATTGGTTCAGTTTCTCTG  
GAGAGCCTTGGCTAATATAAAGTCTATACTCTACAAAGTGCCCTAGGTAC[  
G/T]CAGGGAGTACCCAAGTGTGTCATGACCAGCCCGACAGCCCTGGCTGC  
TGGCTTCCCCGCACACAACCTCTGCACGCTGCCTTCATCAGCCTTTCTCTCT  
CAGCTGAACCGAGGGCATTGAAGCGGGCCTCTGGCACTGTACCTATGAGG  
GAGCAATATCTTCCCCTACACTGACCTCTTCCGTGCCGAGATGCAGCCC

SG13S102

GCCTCTGGCACTGTACCTATGAGGGAGCAATATCTTCCCCTACACT  
GACCTCTTCCGTGCCGAGATGCAGCCCTCCCTGCTGCCACTAGTTACAGTG  
GTCCATGTTCCCTTTCAAAGTGAAGTTTTGATAAAAGCACCTCTTAACCAA  
TGCCAAATAGCTAAGTCTGGGACAAAGATTGCAGGTATTTTGCATTTTCC[  
A/T]TGTAACCTCAGAGGGATTGCCATTACACTGATCTGAGCTGCAGAAT  
ACCAGGCAGCCACCTCACCCACCCAGCAGGTCCACTCTTATACTTTCTCAG  
AAAGCACAGCCACTCTACTCTTATTCAGTTGAAAAGAATTTCCAGGAAGG  
TGTTTCTGCGATTGCCTCAGAAAAGTCAGTTCCCTTTGGGAATTTCCCT

SG13S103

TACTTTTCTCTGAAGAAATGGAGATATCAGCTGTCCCTCCCCACTG  
CCATTTATTCCCTTCCTTCATTCAAACCTTATGTGGCTGCTACTTACCGTGTG  
TTAAGTGTTCACTTTTTTTCTTGGAATTCAAAAAAAGAAGGACAGTATTTG  
GGGCACAGATCTTTTGGTGTTCTATACATTTTTTTAAAGTTTCATTTTA[C/T]  
ATTTGTGTGTGCGTGTGTGTGTGTGTGTGAGACAGTCTTGCTCTGTTGCC  
AGGCTGGAGTGCAGTGGCATAATCATTGGCTCACTGTAGCCTCAAAGTCC  
TGGGCCCAAGCAATCTTCCCACCTCAGCCACCCAAAATGCTGGGGTTACA  
GGTTTATGCCACTCTGTCTGACCTGAAAGTTTTGGGTTTACTTTCC

SG13S104

GCATAATCATTGGCTCACTGTAGCCTCAAAGTCCTGGGCCCAAGCA  
ATCTTCCCACCTCAGCCACCCAAAATGCTGGGGTTACAGGTTTATGCCACT  
CTGTCTGACCTGAAAGTTTTGGGTTTACTTTCCCTTCTTTCTTTGCTGAA

FIG. 8.14

GTCAGAGATGATGGCAGCTTCCAGATTCTCTGGTGCCTGTGCTGGGCTC[A/  
G]TGCTGGTCATGGTCTTGGGTCCAGGATTCATTCTGGAGACTCTCAGGGA  
AGTTTCCCATGACAAGGAAATGTAGGAGAGTGTGCTGGCTTTGCGTGCTC  
CTCTGCCAAGCCCTGCTTCTCCTGGTGGGACACACTGAACCACAGCCAGG  
GCATTTTGGTGGTTAGTTAAAAAAAAAAAAAAAAAAAAAAAAAAGGAAG  
SG13S191

CTTCAGAAATTGTAATGATGAAAGAGTGCAAGCTCTCACTTCCCCCT  
TCCTGTACAGGGCAGGTTGTGCAGCTGGAGGCAGAGCAGTCCTCTCTGGG  
GAGCCTGAAGCAAACATGGATCAAGAACTGTAGGCAATGTTGTCTCTGTT  
GGCCATCGTCACCCTCATCAGCGTGGTCCAGAATGGTAAGGAAAGCCCTT  
CA[A/C]TCAGGGAAGAACAGAAGGGGAGATTTTCTTTGATGGTTGTTTGGA  
AGTCAGGCTTAAACAATTGTGTCTGTGTGTGCGCATGCACAAACACTTTTA  
CCTTATCTTTATTTTCTTCTTTTATTTGAATGTATAGGGTTGTGTGTATTTC  
TGTGTAAATTTGGGGTTTTCTCTCTTCTTAGTCTTTCACCTTTTGTGGTG  
SG13S105

TTTTCTAACATCTGCAGTGCAATTGAAGTTACCAGTCATCTGCAGTC  
TAAAAAGAAAGTGATTTTGGGAGGTGCGTAGAAAAAATCATCTTATTATT  
TTTCTCTATATTACTTTTTTCTTTTTTCTCCTGAAGAACTTTTTTTTTTG  
GTGATACCTTCTTTTTCTCTAGCACGTATAATTTTGGAAGCATTTTTTC[A/G]  
TATGCAGTGTATACTTCAGAAAGAGAGAGAGAGAGAGAGGAAAATTGTCCTG  
TTCAGCGTTTGCATTTCCATTATTCCTGCTATTAGTTAAAAACAACAACAA  
CAACAAAAACAAGCAGGATACCTAGATCTGGAAAAGGGAGAATTGTGT  
AGAGCTGTCTTCCTAAAGTTCTGAGTTAGGGCTGCCTCAGACCACTT  
SG13S106

TTTTGGAAGCATTTTTTCATATGCAGTGTATACTTCAGAAAGAGAGA  
GAGAGAGAGGAAAATTGTCCTGTTTACGCGTTTGCATTTCCATTATTCCTGC  
TATTAGTTAAAAACAACAACAACAAAAACAAGCAGGATACCTAGA  
TCTGGAAAAGGGAGAATTGTGTAGAGCTGTCTTCCTAAAGTTCTGAGTTA  
GG[A/G]CTGCCTCAGACCACTTTCATAACTATCTCCAGTGGCTTTGTGTTTT  
ATATTTATTAAGATAGAGAAAAAAGAGTAATTACTAAGGGCAGCTGCTG  
TAGCTTTATGGTGATTACTGAACATTGACATGCTGTCACGTTTTTGGAAC  
TTGAGTATTTAATCACTTTGGGATATTCTATTTTCCCCCATCTTGAGTGT  
SG13S107

GGAACCTTTGAGTATTTAATCACTTTGGGATATTCTATTTTCCCCCAT  
CTTGAGTGTGGACAGATGCTGGTGATGTAGCCTTCTGGGCACAGAGCAAG  
CCTCCCCCTCAGCCTCTGCACCAGAAAGGCTCAGCTTCACACACTCCAAGT  
ATGTTTTCTACAAGAACTACACTTTGTGGCTTTCTGACCCAAACATTTTT[A/  
G]TACTAAATTACACACAACAAAGTTGTAGCTCAGAGAGGGAACAAATGG  
CTTATTTAGGCCACCATTTTCTTGAGCCATTATGATTTACACAGGGCTCC  
CTTGGCCCTGTAAATTGGCAAGGATTCCATTATTCAACCCGCATACATGTA  
CAGAGACCCTGCTCTGGCCCAGATAGTATTCTGGGTACAGGCGGATA  
SG13S108

TGTGGACAGATGCTGGTGATGTAGCCTTCTGGGCACAGAGCAAGCC  
TCCCCCTCAGCCTCTGCACCAGAAAGGCTCAGCTTCACACACTCCAAGTAT  
GTTTTCTACAAGAACTACACTTTGTGGCTTTCTGACCCAAACATTTTTATA  
CTAAATTACACACAACAAAGTTGTAGCTCAGAGAGGGAACAAATGGCTTA  
[C/T]TAGGCCACCATTTTCTTGAGCCATTATGATTTACACAGGGCTCCCT  
TGGCCCTGTAAATTGGCAAGGATTCCATTATTCAACCCGCATACATGTACA  
GAGACCCTGCTCTGGCCCAGATAGTATTCTGGGTACAGGCGGATAGAGCA  
GGAAACAAAACAGCTACAGTGATGGACAGGTCAGCCTGCAGCAATGCC

SG13S109

TTTTTATACTAAATTACACACAACAAAGTTGTAGCTCAGAGAGGGA  
ACAAATGGCTTATTTAGGCCACCATTTTCTTGAGCCATTATGATTTACAC  
AGGGCTCCCTTGGCCCTGTAAATTGGCAAGGATTCCATTATTCAACCCGCA  
TACATGTACAGAGACCCTGCTCTGGCCCAGATAGTATTCTGGGTACAGGC[  
A/G]GATAGAGCAGGAAACAAAACAGCTACAGTGATGGACAGGTCAGCCT  
GCAGCAATGCCTGCAGTCTCTGCAAAGGTAGCTGTATGGGTGGGCAGGTG  
GCTAGCACTTATTCAGCTCTGGAAGGATCTCCCCTCTGGCCTCTCCCCTGA  
CACCCATCAATAAAACTGAGGAGCATCGGTGGACAGGGGACCTTGTGCCC  
SG13S110

TTTTCTTGAGCCATTATGATTTACACAGGGCTCCCTTGGCCCTGTA  
AATTGGCAAGGATTCCATTATTCAACCCGCATACATGTACAGAGACCCTG  
CTCTGGCCCAGATAGTATTCTGGGTACAGGCGGATAGAGCAGGAAACAAA  
ACAGCTACAGTGATGGACAGGTCAGCCTGCAGCAATGCCTGCAGTCTCTG  
C[A/G]AAGGTAGCTGTATGGGTGGGCAGGTGGCTAGCACTTATTCAGCTCT  
GGAAGGATCTCCCCTCTGGCCTCTCCCCTGACACCCATCAATAAAACTGA  
GGAGCATCGGTGGACAGGGGACCTTGTGCCCCCTCCCTGCCTGTGCAGTT  
GGGGCTGAACCCAGCTACGAAGTTTGAGCTCACTCTCTCCAGCTCCCTCTC  
SG13S111

GACAGGTCAGCCTGCAGCAATGCCTGCAGTCTCTGCAAAGGTAGCT  
GTATGGGTGGGCAGGTGGCTAGCACTTATTCAGCTCTGGAAGGATCTCCC  
CTCTGGCCTCTCCCCTGACACCCATCAATAAAACTGAGGAGCATCGGTGG  
ACAGGGGACCTTGTGCCCCCTCCCTGCCTGTGCAGTTGGGGCTGAACCCA  
GC[C/T]ACGAAGTTTGAGCTCACTCTCTCCAGCTCCCTCTCAATTCAGAGCT  
GAACTGTGGGAAGCTTCAGAGCTCTCTGTTTCAAGGACAGGTTCTCCTCAC  
CTCTCCTAATGGAGGTGCACCAGGGAAGTGGCCCTGCTCTGCCCAGGGCT  
TTCTCCTGGACTTTGCCATCATGGTCTAGCAAACCCTGTTTCAGATTGAGG  
SG13S112

CACTCTCTCCAGCTCCCTCTCAATTCAGAGCTGAACTGTGGGAAGC  
TTCAGAGCTCTCTGTTTCAAGGACAGGTTCTCCTCACCTCTCCTAATGGAG  
GTGCACCAGGGAAGTGGCCCTGCTCTGCCCAGGGCTTTCTCCTGGACTTTG  
CCATCATGGTCTAGCAAACCCTGTTTCAGATTGAGGTGAGTGGTGAGATTT[  
C/T]GAATTCTTTTTGACAGATAGGATTAAGTCTTCTTCTGTGGGACAAGTG  
GGAGGTAGAGGTAAGATTAAAGATGGCCAAATGTCTGAGTCCTGACAGCC  
ACAATATGGAGATCTAGACTTTTTACAGACCACAGGGCACAGGGGCCTCA  
CTAACAGAGTTCCCGGAAGTGATGAGTGTGCTGGGGGCTTCTTGTTGA  
SG13S113

TAGGATTAAGTCTTCTTCTGTGGGACAAGTGGGAGGTAGAGGTAAG  
ATTAAAGATGGCCAAATGTCTGAGTCCTGACAGCCACAATATGGAGATCT  
AGACTTTTTACAGACCACAGGGCACAGGGGCCTCACTAACAGAGTTCCCG  
GAAGTGATGAGTGTGCTGGGGGCTTCTTGTTGAAGAGACACTAGAATGG  
AC[C/G]AGCTGGGAGCTAATTTTTTGGGCTGGAGTGTGATGGCCTGCACAT  
CACTGCCTCTGTCCCTCCATTGTCACAGCTGCCCCTTAGGAGCCAGCTGAG  
GCAATTTGTGGTCAGAGTGACTTTGCACAGTTGTCCTGCCTGTGTTTCAGGA  
AGGGAGTTTCTGTGGTCCCTTTGAAACCACAGAAGAGCCCCCTCGTATAGC  
SG13S114

AGTTGTCCTGCCTGTGTTTCAGGAAGGGAGTTTCTGTGGTCCCTTTGA  
AACCACAGAAGAGCCCCCTCGTATAGCTCTCAATGGAGGGGGCAAACATT  
CAAATAACTCAGGAGATAACACAACCTATTTGTTTTTAAGTGTGAGTTTTTA  
GGCAATCACAAAGATCCAGATGTATGTCCAAGCCTCTCTTTGCAATTCTA[

A/T]TTAACCTCAATGTTGCAACCATAGACCTACCTTACAGAGTTCAAAAA  
AATATGCAAAAACCCTGCCTTTCTTCTTCCTCATACCCCAAATGCCATT  
TGAACATTTCTGTAGTTAAAAAAGATTTCCATGGTGTTACCAGGCACT  
GTACACAGTCTGTGTCCCAAGACAAGGAGGTACAGTTCCACATGCGCC  
SG13S115

AGGGGGCAAAACATTCAAATAACTCAGGAGATAACACAACCTATTT  
GTTTTTAACTGTGAGTTTTTAGGCAATCACAAAGATCCAGATGTATGTCCA  
AGCCTCTCTTTGCAATTCTAATTAACCTCAATGTTGCAACCATAGACCTAC  
CTTACAGAGTTCAAAAAAATATGCAAAAACCCTGCCTTTCTTCTTCCTCAT  
[A/T]CCCCAAAATGCCATTCTGAACATTTCTGTAGTTAAAAAAGATTT  
CCATGGTGTTACCAGGCACTGTACACAGTCTGTGTCCCAAGACAAGGAGG  
TACAGTTCCACATGCGCCCATGACTGGGTTGGGCTCTGCACTCTCTCTATA  
CTTTGAGAGCCTGATTTTCTGTGATTGGGCAGAGCTGGCCACCTGGTG  
SG13S116

TCTGCACTCTCTCTATACTTTGAGAGCCTGATTTTCTGTGATTGGGC  
AGAGCTGGCCACCTGGTGCAATGTCTCTCTGCCTTTCAAACATGTTTT  
AGTCATCAAGATCTTCAAATTTGTAACCCTTTCCAGCTTGATCCAGCAGAA  
TGCAGATTTGGAAAAACAGAACGAGTTTAAAAATACATGATTCTAAGAAA[  
C/T]CTGGACCAGAACTATCAAACTTGGTTTCCCAGAGAATATAGCAAAT  
GGGCTCATTGGCCAATACTATGACATTGGCTTTTGAGAAAAGAAAGGCTT  
TATTGCAAGGCTGGCCAGCAAGGAGACAGGAGTTGGGCTCAAATCTGTCT  
CCCCAGTTTGGGGCTTAGGGCAAGTTTAAATTACACAGACGCATTTCTTA  
SG13S117

AACCCTTTCCAGCTTGATCCAGCAGAATGCAGATTTGGAAAAACAG  
AACGAGTTTAAATACATGATTCTAAGAAACCTGGACCAGAACTATCAAA  
ACTTGGTTTCCCAGAGAATATAGCAAATGGGCTCATTGGCCAATACTATG  
ACATTGGCTTTTGAGAAAAGAAAGGCTTTATTGCAAGGCTGGCCAGCAAG  
GA[A/G]ACAGGAGTTGGGCTCAAATCTGTCTCCCCAGTTTGGGGCTTAGGG  
CAAGTTTAAATTACACAGACGCATTTCTTATGAGTAGCAGGCAGAGAGCC  
TCCAACCTTCTTCTGCCTAGGTACCAGCAGCTTAGACATGATGCAAACCTGG  
GAAGCACATACTGTATTTGGAGAAAGTGATTGGGAAGAAATGTGAGCTGA  
G

SG13S118

TACATGATTCTAAGAAACCTGGACCAGAACTATCAAACTTGGTTT  
CCCAGAGAATATAGCAAATGGGCTCATTGGCCAATACTATGACATTGGCT  
TTTGAGAAAAGAAAGGCTTTATTGCAAGGCTGGCCAGCAAGGAGACAGG  
AGTTGGGCTCAAATCTGTCTCCCCAGTTTGGGGCTTAGGGCAAGTTTAAAT  
TA[C/T]ACAGACGCATTTCTTATGAGTAGCAGGCAGAGAGCCTCCAACCTC  
TTCTGCCTAGGTACCAGCAGCTTAGACATGATGCAAACCTGGGAAGCACA  
TACTGTATTTGGAGAAAGTGATTGGGAAGAAATGTGAGCTGAGGGGAGG  
GGCTCAGTGCCCCTGAGCTACACTTAGTGATGGCAGAGGAAGGATGTCCT  
CCC

SG13S119

TGGGGCTTAGGGCAAGTTTTAATTACACAGACGCATTTCTTATGAG  
TAGCAGGCAGAGAGCCTCCAACCTTCTTCTGCCTAGGTACCAGCAGCTTAG  
ACATGATGCAAACCTGGGAAGCACATACTGTATTTGGAGAAAGTGATTGG  
GAAGAAATGTGAGCTGAGGGGAGGGGCTCAGTGCCCCTGAGCTACACTTA  
GT[A/G]ATGGCAGAGGAAGGATGTCTCCCGCAGGAGGCTGTTCCACATCT  
GCTCTGGTTGTAGGGGGAGCTGGCAGGCATTAGCAGCGGCCTCTTTCCCC  
CAAGAGAGGCAGCCTCCTCCAAGTTTTGGCGACATTATGGCCCTGCAATC

FIG. 8.17

ATAAGGGTTTGTGAGCATAGTGCTAAGGAGGGAAATGGAGCTGCTGTTAC  
TA

SG13S120

CCTCCTGAGTAGCTAGGACTACAAGCATGTGCCACCACGCCCAGCT  
AATTTTGTATTTTAGTAAGGACAGGGTTTCACCATGTTGGCCAGGTTGG  
CCTCCAACCTCCTGACCTCAAGTCATCCTCCTGCCTCGACCTCCCAAAGTGC  
TGGGATTACAGGCATGAAACCAGCCTAGAAATACATACTATTATTTATTC[  
C/T]TGTTTTACAGATAAGCAAAGTGAGTCATGGAGAATTTGGTTGAAAGT  
CCCAAGGTCAGGAGTCGTGAAGCTGGGATTAAACCTAATCATCTGACTT  
TAGAGAGTAGACACTTGCTCCATGCATATTGCCTCCAATTCATTCAATCAA  
GCACTCCCTGCTCAAGAAGTTCTTTCTTATGTTGAGCTGAAATCTGCAG

SG13S121

TCATCTGACTTTAGAGAGTAGACACTTGCTCCATGCATATTGCCTCC  
AATTCATTCAATCAAGCACTCCCTGCTCAAGAAGTTCTTTCTTATGTTGAG  
CTGAAATCTGCAGCCCTATGCGTTTTACCCAGCAGTCCTGGTGCTGTTCCC  
TAAATCACTTAGACTGTGCCTGCTCTTTCTGTGTTTACAGTGTCAGCT[A/  
G]TAATATCCCCCTCTTCGGCCTAACGTTTCTGAAGTCCCTTGCCACTGGGT  
CTCCTCTCCTCTTCCTGTGTTCTTTCTAAGAACACCTATGCAGATAGGTGTC  
TTCTGTACAGGGAAGCTGTTCTGAGATCCGGGCATCGACTCTGTTAGAAT  
AATCTACGTATGAGTTATTTTTTTGAGAACTATGTGTCATTGCT

SG13S122

ATGTTGAGCTGAAATCTGCAGCCCTATGCGTTTTACCCAGCAGTCC  
TGGTGCTGTTCCCTAAAATCACTTAGACTGTGCCTGCTCTTTCTGTGTTTAC  
AGTGTGAGCTGTAATATCCCCCTCTTCGGCCTAACGTTTCTGAAGTCCCTT  
GCCACTGGGTCTCCTCTCCTCTTCCTGTGTTCTTTCTAAGAACACCTAT[A/G  
]CAGATAGGTGTCTTCTGTACAGGGAAGCTGTTCTGAGATCCGGGCATCG  
ACTCTGTTAGAATAATCTACGTATGAGTTATTTTTTTGAGAACTATGTGTC  
ATTGCTGACTCATATTAACCTCTGTGGTTAACTAAAATCTCAAGATCTCTTT  
ATGTTTGTTGAGAACTTATTTAACTTCTCTGGCCCTCCGTTTCC

SG13S123

GTCCTGGTGCTGTTCCCTAAAATCACTTAGACTGTGCCTGCTCTTTC  
TGTGTTTACAGTGTCAGCTGTAATATCCCCCTCTTCGGCCTAACGTTTCTG  
AAGTCCCTTGCCACTGGGTCTCCTCTCCTCTTCCTGTGTTCTTTCTAAGAAC  
ACCTATGCAGATAGGTGTCTTCTGTACAGGGAAGCTGTTCTGAGATC[C/T  
]GGGCATCGACTCTGTTAGAATAATCTACGTATGAGTTATTTTTTTGAGAA  
CTATGTGTCATTGCTGACTCATATTAACCTCTGTGGTTAACTAAAATCTCAA  
GATCTCTTTATGTTTGTTGAGAACTTATTTAACTTCTCTGGCCCTCCGTTT  
CCTTCACTGAGCAGTGGAGTGATTGATAACCTCCACCTGTGGTT

SG13S43

CACCTATGCAGATAGGTGTCTTCTGTACAGGGAAGCTGTTCTGAG  
ATCCGGGCATCGACTCTGTTAGAATAATCTACGTATGAGTTATTTTTTTGA  
GAACTATGTGTCATTGCTGACTCATATTAACCTCTGTGGTTAACTAAAATCT  
CAAGATCTCTTTATGTTTGTTGAGAACTTATTTAACTTCTCTGGCCCTC[A/  
C]GTTTCCTTCACTGAGCAGTGGAGTGATTGATAACCTCCACCTGTGGTTG  
CTGAAGGTCTTGACAAGATGATATAGTTAAAGTAGCTAGCAGTGCCAC  
GTACGGCGGATGCCTCACAACGTTTGCAGCCATCTCTCTATCTGTGTCTT  
TGTCTCTCTCACACTGGTTTTGGCTTACTGTTAGCAGCTAGCCGA

SG13S399

TCTGTGGTTAACTAAAATCTCAAGATCTCTTTATGTTTGTTGAGAAA  
CTTATTTAACTTCTCTGGCCCTCCGTTTCTTCACTGAGCAGTGGAGTGATT

GATAACCTCCACCTGTGGTTGCTGAAGGTCTTGCACAAGATGATATAGTT  
AAAGTAGCTAGCAGTGCCACGTACGGCGGATGCCTCACAACGGTTTGC[  
A/C]GCCATCTCTCTATCTGTGTCTTTGTCTCTCTCTCACACTGGTTTTGGCT  
TACTGTTAGCAGCTAGCCGAGATAAAGTGTGTTTATGGTCTTTGCATGTATT  
GTTTCTGTAGCATACTGGAGGATTACAAGAGGTTGGGGAGTGAGGGGGCG  
GTGAGGAGTAGACAAAGGCAGCCAACTCTTCCAAGTTTAGCTTAGAA  
SG13S124

TTGATAACCTCCACCTGTGGTTGCTGAAGGTCTTGCACAAGATGAT  
ATAGTTAAAGTAGCTAGCAGTGCCACGTACGGCGGATGCCTCACAACGG  
TTTGCAGCCATCTCTCTATCTGTGTCTTTGTCTCTCTCTCACACTGGTTTTG  
GCTTACTGTTAGCAGCTAGCCGAGATAAAGTGTGTTTATGGTCTTTGCATG[  
C/T]ATTGTTTCTGTAGCATACTGGAGGATTACAAGAGGTTGGGGAGTGAG  
GGGGCGGTGAGGAGTAGACAAAGGCAGCCAACTCTTCCAAGTTTAGCTTA  
GAAGGAAGGAGCGGTAAACCCTAGTTGAATGTTGGAAGTGAAGCAGGTTTG  
TTTTTGTTTTGTAAAGGATAGGGAAGATCTGTGCGTGTTTCCAGGATA  
SG13S125

ACTTGAAGTCAGTGGCATGGACAGGGTCAAGATCACAGTTAGAGG  
ATGCAGCCTTAGAGAAAAGGAAGGGGCTCGGTTCTCTGAGCAAGGAGGG  
AAAGAAGAGAGGCAGATGCAGAGAAGTACGGCACATCGTGCTGCTGGTT  
GTAGAAATAACCTCTGACTTTTAATAAAGTCATCCCTCGGTATCCCTGGGG  
GATT[A/G]GTTCTATGACCTCCCTCGGATGCCAAAATTCGTGGATGCTCAA  
GTCCCTGATATAAAATGGCATAGTATTTGCATTAAACCTACACACATCCTC  
CATATCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGTGAGATGGAGT  
CTTGCTCTGTGCGCCTGGCTGGAGTACAGTGGCTCGATCTTGGCTCACT  
SG13S400

AATACCTGATAGAATGTAAATGCTATGTAAACAGTTGTTATACTGT  
ATTGTTAAAAGACAGTAACAAGAAAAAAATCTGTACATGTTCAAGTCCAG  
ACAAATGGTTTTCTGTTTTTTTTTTTTTTTTTTTAATATTTTGGTCAGTGGTT  
GGTTGACTCCAGGAATGCAGAACCCGCAGATATAGAAGGTTGATTATGC[  
A/G]TTCAGAGGCAGGGAATACCATCTTGGGTTCCAGAAAGAAAATGATCA  
GCATTTTCTGTCATACTCTGGTAAAAACAGATCTTTTGAATGGACAGGTGT  
ATTAAACCCTGTGGAGCTGGCTGGGCCTGGCGGCTCACGCCTGTAATCCC  
AGCACTTTGGGAGGCTGAGGCAGGTGGATCACGAGGTCAGGAGTTCGAG  
SG13S126

TGCCCCGCAGAGTTTGAAGTCCCGGCTGCACCTCTCCCCAGCAGCA  
GGTTGACTCTGGAAAGTTGCAGCGTTCTTACCTACAGAGTGGGAACAGTA  
CTACCCATTGCACAGAGTGGGTGCAAAGCTCTGTGACGGAATACATGGCA  
AGTGCCCAACCATTCCTGGGATGAGGTGGGCCCTTCCTTTACGTAAGA  
GA[A/G]CCCTACAGATACACTCAAAGTGGGCACATTCTACAGAAGGAGT  
GTTATTTGTGTAGAAAAGAAAAACATGAAAGGCTTTTATTCCTATACACA  
ATAAAGCACCCCTTTAATGTCTTTTTGAGGAGGATAATATGAAATTGATGA  
AAAGGAACCCTGTGGTTGGATCCCTGACAATCACATGTATCCCTTTTTTCA  
C

SG13S127

TACAGATACACTCAAAGTGGGCACATTCTTACAGAAGGAGTGTTAT  
TTGTGTAGAAAAGAAAAACATGAAAGGCTTTTATTCCTATACACAATAAA  
GCACCCCTTTAATGTCTTTTTGAGGAGGATAATATGAAATTGATGAAAAG  
GAACCCTGTGGTTGGATCCCTGACAATCACATGTATCCCTTTTTTCACTCT  
T[A/G]AAAAAGGAGTAAAGGAATAAAATAGAAANNNNNNNNNNNNNNNNNN  
NN

FIG. 8.19



NNATGTTTCAGTCA  
CTGTATAATAACTAGCCAGATT TTTTGTTGTTGTTGTTTTGTTTTGTTTTG  
TTTT

SG13S128

ACATTCTGAACCACAGACAGTTCTTTACCCTGAACCTTTGCATATTT  
TGTTCTCTTAGCTTAGAGCGGCCCTCTCCCTCCGTCTGCTTGGCTAATTC  
TACTTGTTCTTCAGATTTTATCTTAGATGTCATTCCCTCAAGGAACTCTTCT  
GTGACTCAACATGGAATTAAGTTGCCTCCTTTGACCCTGAAAGCACC[A/G]  
TGTACTCAATCTCATCTTGGCATGACTCACTTTGCTGTGTGGAATGTCTGC  
TTTCCTTGTTTGTCTATTCCTTTAGACTGTAAGATCCTAGAAAGTGGGGGC  
CGTGCCTTGCTCATGACTGTGTTTCTAACACCAAACACAGTGTTTCAGTAGA  
GAGCAGCTGCTGAGTACGTTTCTGCTAAATGACAGTTGATGGAG

SG13S129

AATCCTTCTGTGACTCAACATGGAATTAAGTTGCCTCCTTTGACCCT  
GAAAGCACCATGTACTCAATCTCATCTTTGGCATGACTCACTTTGCTGTGTG  
GAATGTCTGCTTTTCCTTGTTTGTCTATTCCTTTAGACTGTAAGATCCTAGAA  
AGTGGGGGGCCGTGCCTTGCTCATGACTGTGTTTCTAACACCAAACACA[A/  
G]TGTTCAGTAGAGAGCAGCTGCTGAGTACGTTTCTGCTAAATGACAGTTG  
ATGGAGGACATTTAGGGTTGCTTGGAGGTCAAGTCAAGGAGGCATTTAAC  
ATTCTAGTAAAACAAGGAAGTAACAGGCTCCTGAACATGCCCAACAATGAA  
CCAGATGCAAACCTTTTCCCTTGGCAGGATTCTTTGCCCATAAAGTGG

SG13S130

AAAGCACCATGTACTCAATCTCATCTTGGCATGACTCACTTTGCTGT  
GTGGAATGTCTGCTTTCCTTGTTTGTCTATTCCTTTAGACTGTAAGATCCTA  
GAAAGTGGGGGCCGTGCCTTGCTCATGACTGTGTTTCTAACACCAAACAC  
AGTGTTCAGTAGAGAGCAGCTGCTGAGTACGTTTCTGCTAAATGACAGT[G  
/T]GATGGAGGACATTTAGGGTTGCTTGGAGGTCAAGTCAAGGAGGCATTT  
AACATTCTAGTAAAACAAGGAAGTAACAGGCTCCTGAACATGCCACAAT  
GAACCAGATGCAAACCTTTTCCCTTGGCAGGATTCTTTGCCCATAAAGTGG  
AGCACGAAAGCAGGACCCAGAATGGGAGGAGCTTCCAGAGGACCGGAA

SG13S190

TTCTGCTAAATGACAGTTGATGGAGGACATTTAGGGTTGCTTGGAG  
GTCAAGTCAAGGAGGCATTTAACAATTCTAGTAAAACAAGGAAGTAACAG  
GCTCCTGAACATGCCACAATGAACCAGATGCAAACCTTTTCCCTTGGCA  
GGATTCTTTGCCCATAAAGTGGAGCACGAAAGCAGGACCCAGAATGGGA  
GGAG[C/T]TTCCAGAGGACCGGAACACTTGCCTTTGAGCGGGTCTACACTG  
CCAAGTGAGTCCTAACCCTGATGTTGCTAATAAGTGGGGGCATGGGCAGG  
GGGGCCTCCTTCTAGGAGTGATGACCACCCTTAATACCACATGTCTGTCTG  
AGCCAAGTTTCTGAGCGCCAGGGAGGTGAGGAAGGTTGGACTTCACCAGA  
GAG

SG13S192

GGCATTTAACATTCTAGTAAAACAAGGAAGTAACAGGCTCCTGAA  
CATGCCCAATGAACCAGATGCAAACCTTTTCCCTTGGCAGGATTCTTTG  
CCCATAAAGTGAGACACGAAAGCAGGACCCAGAATGGGAGGAGCTTCCA  
GAGGACCGGAACACTTGCCTTTGAGCGGGTCTACACTGCCAAGTGAGTCC  
TAA[A/C]CCTGATGTTGCTAATAAGTGGGGGCATGGGCAGGGGGGCCTCCT  
TCTAGGAGTGATGACCACCCTTAATACCACATGTCTGTCTGAGCCAAGTTT  
CTGAGCGCCAGGGAGGTGAGGAAGGTTGGACTTCACCAGAGAGGCTTTGT  
GGACACCCTTTATCATCTTAGTGAGTGCTAGTGTCAAAACAAAGGGAGTG  
GG

FIG. 8.20

SG13S193

GCTCCTGAACATGCCCACAATGAACCAGATGCAAACCTTTTCCCTT  
GGCAGGATTCTTTGCCCATAAAGTGGAGCACGAAAGCAGGACCCAGAAT  
GGGAGGAGCTTCCAGAGGACCGGAACACTTGCCTTTGAGCGGGTCTACAC  
TGCCAAGTGAGTCCTAACCCTGATGTTGCTAATAAGTGGGGGCATGGGCA  
GGG[A/G]GGCCTCCTTCTAGGAGTGATGACCACCCTTAATACCACATGTCT  
GTCTGAGCCAAGTTTCTGAGCGCCAGGGAGGTGAGGAAGGTTGGACTTCA  
CCAGAGAGGCTTTGTGGACACCCTTTATCATCTTAGTGAGTGCTAGTGTC  
AAACAAAGGGAGTGGGGATATGGGGCACATTGGTGGAGGGAGGTGTGAT  
CTC

SG13S88

TTGCCCATAAAGTGGAGCACGAAAGCAGGACCCAGAATGGGAGGA  
GCTTCCAGAGGACCGGAACACTTGCCTTTGAGCGGGTCTACACTGCCAAG  
TGAGTCCTAACCCTGATGTTGCTAATAAGTGGGGGCATGGGCAGGGGGGC  
CTCCTTCTAGGAGTGATGACCACCCTTAATACCACATGTCTGTCTGAGCCA  
AG[C/T]TTCTGAGCGCCAGGGAGGTGAGGAAGGTTGGACTTCACCAGAGA  
GGCTTTGTGGACACCCTTTATCATCTTAGTGAGTGCTAGTGCAAAACAAA  
GGGAGTGGGGATATGGGGCACATTGGTGGAGGGAGGTGTGATCTCTGCAG  
CTTCAGAAAGATCTGAAAGAGTCATTTGGTTAGAGAAGTTGACCTATTTCC  
T

SG13S131

AAACAAAGGGAGTGGGGATATGGGGCACATTGGTGGAGGGAGGTG  
TGATCTCTGCAGCTTCAGAAAGATCTGAAAGAGTCATTTGGTTAGAGAAG  
TTGACCTATTTCTGTGGGGTTAGACCAGGGTTGCTACTGTGAACACCAGC  
CATGACTCACCAGTCACCTTCAGAAGCCACAGGCAGGACATGCTGACGAC  
AG[C/T]CTTCAACTACCCACCCCTTGCTCCCCTGCGGGTGGAAGTCTGGA  
GGTGACACCACTGCATTTTCTAACACGGGGGCTCCTTGAGCAACTAGAAC  
AAGAACAGAAAGAATGGGGACATTAGCAGGTGCTTTCCCCCTCTCTCATT  
CTTTTCTTTGAATAAAAAGGTTGTTTGAAAACACCTGAGCGGCTCCTAAAG  
A

SG13S132

CTCCTCTCTTCTTTATGCAGAGTGATTTCAAGGCTCAGCCAGTGGC  
AGGCATGCTGGGGACTATGGACTACGGACTAGGGGCCTGTCACAGAGGA  
AGGCCTCATGCTAGAGAGCTAAGGGAGGAGCTGGCCTTCAGTTCCATCCC  
AGGAGCAACTTTGATGTTCCCAGAGATCCTTCCAAAGGGGGAGTCATGGT  
CA[A/C]CCAAGAAAAATGTATTCAGAATGCCAAGAATGGTGCAAACCTCAG  
GACAAAGATTCACTGCAGGGTTGGAGTCCCTGGGCTTGCTGCTGGCAC  
CATGGGAGGGAGGGTCCCCTTCAGGGGTACCGTTGGTTTCCTGTGAATTA  
AACTGGCTTCAAGGGATCTCGACTGAACAGGCCTATATCACTCACTGA  
TAT

SG13S133

TCTCCTCATCTAGGTATTTTAATTGTTTCAGTGAGGTGTAGGCATG  
AGGGGATTGGAGGGGGCATCTCCTCCATTGCAGTTTTTCATTGGCTGCTTT  
GCTCCCTCAGCTCCGAAATCGCTGGGCCACTCTCGAACGCATTAGTACGG  
TAGTCACAGGTTGATTGCCTGGCCCCCTTGCCCTCTGTGGGCATTTCCCT[C  
/T]TCAGACAGCCCCTGAGTACTCACAGTGCTGCTACAGTGGGCCACCTAG  
ATCTCCCTCTTTCTCCATGCTCCACGTGCTCTGGGCTCCACTCCCTTCTCC  
CAAGCACTTCTGTCCAGGGCTATTCCAGCAGTCTGACCTCAAGGAAATCC  
TTTGCTAAACTGATTATAGAGAGGTTTCTATTTTAACATTTAGGTCT

FIG. 8.21

SG13S38

ATCTAGGTATTTTAAATTGTTTCAGTGAGGTGTAGGCATGAGGGGA  
TTGGAGGGGGGCATCTCCTCCATTGCAGTTTTTCATTGGCTGCTTTGCTCCCT  
CAGCTCCGAAATCGCTGGGCCACTCTCGAACGCATTAGTACGGTAGTCAC  
AGGTTGATTGCCTGGCCCCCTTGCCCTCTGTGGGCATTTTCCCTTTCAGAC[A  
/T]GCCCCCTGAGTACTCACAGTGCTGCTACAGTGGGCCACCTAGATCTCCCT  
CTTTCTCCATGCTCCACGTGCTCTGGGCTCCACTCCCTTCTCCCAAGCACT  
TCTGTCCAGGGCTATTCCAGCAGTCTGACCTCAAGGAAATCCTTTGCTAAA  
CTGATTATAGAGAGGTTTCTATTTTAAACATTTAGGTCTTCCATGT

SG13S134

AGGTGTAGGCATGAGGGGATTGGAGGGGGGCATCTCCTCCATTGCA  
GTTTTTCATTGGCTGCTTTGCTCCCTCAGCTCCGAAATCGCTGGGCCACTC  
TCGAACGCATTAGTACGGTAGTCACAGGTTGATTGCCTGGCCCCCTTGCCCT  
CTGTGGGCATTTTCCCTTTCAGACAGCCCCCTGAGTACTCACAGTGCTGCTA  
[C/T]AGTGGGCCACCTAGATCTCCCTCTTTCTCCATGCTCCACGTGCTCTG  
GGCTCCACTCCCTTCTCCCAAGCACTTCTGTCCAGGGCTATTCCAGCAGTC  
TGACCTCAAGGAAATCCTTTGCTAAACTGATTATAGAGAGGTTTCTATTTT  
AACATTTAGGTCTTCCATGTATTAATTCTCAGAATCAATTTAAGATG

SG13S135

CCTTTCAGACAGCCCCCTGAGTACTCACAGTGCTGCTACAGTGGGCC  
ACCTAGATCTCCCTCTTTCTCCATGCTCCACGTGCTCTGGGCTCCACTCCC  
TTCTCCCAAGCACTTCTGTCCAGGGCTATTCCAGCAGTCTGACCTCAAGGA  
AATCCTTTGCTAAACTGATTATAGAGAGGTTTCTATTTTAAACATTTAGG[C/  
T]CTTCCATGTATTAATTCTCAGAATCAATTTAAGATGTTTAAAGGTGTGAT  
TTAAGACATTTTAAAACCATTTGGAGGAGAGTACAGAAATTATGTCATT  
GCTGTCAGCCTCTTTGCACCATCTGCAGAGAAAGATACTAGAGTCCCGCC  
TTGGACACATCCACATGCAAGAGGTGCAAAGAAGGTGTCTTTGATGA

SG13S136

TTCTCAGAATCAATTTAAGATGTTTAAAGGTGTGATTTAAGACATTT  
TAAAACCATTTGGAGGAGAGTACAGAAATTATGTCATTGCTGTCAGCCT  
CTTTGCACCATCTGCAGAGAAAGATACTAGAGTCCCGCCTTGACACATC  
CACATGCAAGAGGTGCAAAGAAGGTGTCTTTGATGAGGCAAGGTCAAAA  
CT[C/T]CTCCCCAGACGAAATCCAAAGAAAGCATTCTACTATGCTATATC  
AGTTTGAAAGAAAACTTCTGCCAGGTGACTGCATTCTCACTGGTCACA  
TTGTGTTTCTATGGACTCCTCAGCTCAACCAATTTGGAGAAGTTATGGTGC  
AATTTACCATATCTGGTTAGAAGTTAAGTTTCCAATTTGCTGGCAATGAA

SG13S137

AAGAAGGTGTCTTTGATGAGGCAAGGTCAAACTTCTCCCCAGACG  
AAATCCAAAGAAAGCATTCTACTATGCTATATCAGTTTGGAAAGAAAAA  
CTTCTGCCAGGTGACTGCATTCTCACTGGTCACATTGTGTTTCTATGGACT  
CCTCAGCTCAACCAATTTGGAGAAGTTATGGTGCAATTTACCATATCTGG  
[C/T]TAGAAGTTAAGTTTCCAATTTGCTGGCAATGAAGAAGAAATGGAGCA  
GGCCAGGCTGTGTAGTTTCTGCCACGTGCCCCCGGGAGTGAACAGCTCTG  
TTGTGAAGAAGCCATGGTGCTTAGACCTGGGCTCGCTAGTTGCCAGCCTCC  
AAATTGCAGAAGTGCCCTTTGGTTGGTGGCTATGCTGTGTCATTGGGA

SG13S86

GCAACATATCTGTGTGCCTGTCTGGGTTGTAAAAAGGGTCAAAGAT  
CAATGCAGCAGGCAGCTACATGCTGGCAAAGCCAGAGGCAGCTGGTCT  
GTTTGCCTGTGCCAGGAAACCACTGGGAATGGGGTTGTGTGTTATTCTAGG  
AGAAAGTCGTCCCAGCAGCAGCTTCTCCAGGGGCATCCAAGAGCACTGAA

FIG. 8.22

AA[A/G]GGTTGCAAGATGACCCATGAGGCTGCAGGAAGAAAAGAACATGC  
ATTTAATCTTGCTATCTGAAAAGTAAGACATGAAGCTTTCCTCATTTTTAA  
TATACACATGGACAGTAGTATGTGTATATAGTTTATATGCAAATATACTTG  
TTATAAGGTTGCATGCTCAAAATTTTGGTTCATGGGGTGTGGGATCATAA  
SG13S87

CAGCTACATGCTGGCAAAAGCCAGAGGCAGCTGGTCTGTTTGCCTG  
TGCCAGGAAACCACTGGGAATGGGGTGTGTGTTATTCTAGGAGAAAGTC  
GTCCCAGCAGCAGCTTCTCCAGGGGCATCCAAGAGCACTGAAAAGGGTTG  
CAAGATGACCCATGAGGCTGCAGGAAGAAAAGAACATGCATTTAATCTTG  
CT[A/G]TCTGAAAAGTAAGACATGAAGCTTTCCTCATTTTTAATATACACA  
TGGACAGTAGTATGTGTATATAGTTTATATGCAAATATACTTGTATAAGG  
TTGCATGCTCAAAATTTTGGTTCATGGGGTGTGGGATCATAAATGTTTAG  
GGACCATGGCTATCAAGGAAAAACAGCATGAAGGATAAATGATACTGGT  
G

SG13S138

CTATCTGAAAAGTAAGACATGAAGCTTTCCTCATTTTTAATATACA  
CATGGACAGTAGTATGTGTATATAGTTTATATGCAAATATACTTGTATAA  
GGTTGCATGCTCAAAATTTTGGTTCATGGGGTGTGGGATCATAAATGTTT  
AGGGACCATGGCTATCAAGGAAAAACAGCATGAAGGATAAATGATACTG  
G[C/T]GGATTAAAAAGACAGATGCATGTATTTTAGCATAAAACACAACCTG  
CTGACTGATACAGATAGCTCAAGATTCTGGGGCAGCTGCTGAACAGATAC  
ACTAGCCAGTGTGGCTCATCGGCTCAGACTTGGCCTTAATTAATGGGCTGT  
CCCTCCACCCATCTCCCATGAGGGCAGAGCTGAGCCAGGGTTTGAGAGCT  
SG13S139

AGTTTATATGCAAATATACTTGTATAAGGTTGCATGCTCAAAATTT  
TTGGTTCATGGGGTGTGGGATCATAAATGTTTAGGGACCATGGCTATCAA  
GGAAAAACAGCATGAAGGATAAATGATACTGGTGGATTAAAAAGACAGA  
TGCATGTATTTTAGCATAAAACACAACCTGCTGACTGATACAGATAGCTC  
AA[C/G]ATTCTGGGGCAGCTGCTGAACAGATACACTAGCCAGTGTGGCTCA  
TCGGCTCAGACTTGGCCTTAATTAATGGGCTGTCCCTCCACCCATCTCCCA  
TGAGGGCAGAGCTGAGCCAGGGTTTGAGAGCTAAAAGGAATTGGACCTG  
GACTCTGTTACAGTGTATATTTAATTCTAATTAATTCATTCTTTGAAAGA  
SG13S140

GTATTTTLAGCATAAAACACAACCTGCTGACTGATACAGATAGCTCA  
AGATTCTGGGGCAGCTGCTGAACAGATACACTAGCCAGTGTGGCTCATCG  
GCTCAGACTTGGCCTTAATTAATGGGCTGTCCCTCCACCCATCTCCCATGA  
GGGCAGAGCTGAGCCAGGGTTTGAGAGCTAAAAGGAATTGGACCTGGAC  
TC[A/G/T]GTTACGTGTATATTTAATTCTAATTAATTCATTCTTTGAAAG  
ACAGAGTCACACTCTGTTGCCTAGGCTGGAGTGCAGTGGCACGATCTTGG  
CTCACTGCAACCTCGGCCTCCCAGGTTCAAGTTATTCTCCTGCTTCAGCCT  
CCTGAGTAGCTGGGATTATAGGCACATGCCCCCATGCCTGACTAATTTT  
SG13S141

GCTAAAAGGAATTGGACCTGGACTCTGTTACGTGTATATTTAAT  
TCTAATTAATTCATTCTTTTGAAGACAGAGTCACACTCTGTTGCCTAGGC  
TGGAGTGCAGTGGCACGATCTTGGCTCACTGCAACCTCGGCCTCCCAGGT  
TCAAGTTATTCTCCTGCTTCAGCCTCCTGAGTAGCTGGGATTATAGGCACA  
[C/T]GCCCCCATGCCTGACTAATTTTGTATTTTLAGTAGAGACGGGGTTTC  
ACCATGTCAGGCTGGTCTTGAACCTCCTGACCTCAGGTTATCCACCCGCCTT  
GGCCCCCTCAAAGTGTTGGAATTACAGGTGTGAGCCACCGTGCCTGGCCTG  
TTCACATGTATAAAACACAGTTTAATGTCCTATTCCCAGCCAATGAGC

FIG. 8.23

SG13S39

TCAGGTTATCCACCCGCCTTGGCCCCCTCAAAGTGTTGGAATTACAG  
GTGTGAGCCACCGTGCCTGGCCTGTTACATGTATAAAACACAGTTTAAT  
GTCCTATTCCCAGCCAATGAGCATGGCTAGAGCAGCCTTGGTCAAAGTTT  
GGTTTTTGGAGAAAAATCCTTGTTAGCTGACCTAAGATTCTCTTTGTGAG  
T[G/T]TAAGTAAGCACAGGTTGCAGAGAGGAGAAGGGTCTCTGGAGAGGT  
GTAATTTTCTAAATGGATTACAAGTTCATGGACTTTTAACAGGTGTTACAG  
GGGATAACAAGTTCTTTATAGACAGACTTTTGAGGACGTTTAAGGGTATTC  
TGATTCTTGGTTTTCTAAGAGGGGAATGTATTATTAACTACAGACACCC

SG13S142

AAAATCCAGAATAATAATAATTTGTCAATAGGAAAGACATTTCCAC  
TGGGGGTAAAGAAGGAAGACATTGGAACAATGATAGCCACCACTTATTGA  
ATGCTTACTGTGAGCCAGGTGGCACTTCACCTTGTTTCATTCTCACAACAG  
TCTAGGGAAGTAATTACTAATGTCTCCATCCACCTCTTGTAGATGAGCAAA  
[C/T]TGAGGCTCATTGAGGCTAGGAAATGCACCCACACTCACATAGCCCAT  
AAGAGGCAGCCATGGCATTGGGCCCAGACCATGTGAACTTCAAAGACTAC  
ACGAGCAGCCACTGGGCAGCTGTCATGGCTAAAGCCACTTGAATTCAGCC  
CAGCAGCAACCCCTCTCCAGGAGGGGCACATAAGCTTGCAGCTTTGGGT

SG13S143

ATAATAATAATTTGTCAATAGGAAAGACATTTCCACTGGGGGTAA  
GAAGGAAGACATTGGAACAATGATAGCCACCACTTATTGAATGCTTACTG  
TGAGCCAGGTGGCACTTCACCTTGTTTCATTCTCACAACAGTCTAGGGAAG  
TAATTACTAATGTCTCCATCCACCTCTTGTAGATGAGCAAAGTGAAGGCTCA  
[C/T]TGAGGCTAGGAAATGCACCCACACTCACATAGCCCATAAGAGGCAG  
CCATGGCATTGGGCCCAGACCATGTGAACTTCAAAGACTACACGAGCAGC  
CACTGGGCAGCTGTCATGGCTAAAGCCACTTGAATTCAGCCCAGCAGCAA  
CCCCCTCTCCAGGAGGGGCACATAAGCTTGCAGCTTTGGGTAGAAGCTGC  
A

SG13S144

GCACTTGAAGTCCTGGATGGCGAGAGGGACTGGCTTGAGCCAGAG  
CCAGGAACAAGGCTCTGAGAATATTCTGGAAATCCACAGGAGGAACCCAT  
TTTCTTACAGCTGGGAGAATTTTCATTCAACTCCAGGCTGACCATGTTTTAT  
TAGGAACGAAGGTGACTTGAACATAAGTCAGGAATGGTTGAATACGGAC  
CC[A/G]ATGTCAAATCACTAGGCAGTTCACATTTCTAATGAGCAAATCCCT  
TAGACAATTAAGAATTTTTTTCTTTTGCATAACCCAGACAAAATCGCTAC  
TTAAAAACAAACCAAAGACCCGAAACATGAGAAAGAGAAGGAAGCAGG  
GGAAATCTTTGGTACTAATAAGTTTTTTAAACAATAAGAGCACCAGATATTT  
TA

SG13S145

ATGAGCAAATCCCTTAGACAATTAAGAATTTTTTTCTTTTGCATAA  
CCCAGACAAAATCGCTACTTAAAAACAAACCAAAGACCCGAAACATGAG  
AAAGAGAAGGAAGCAGGGGAAATCTTTGGTACTAATAAGTTTTTTAAACAA  
TAAGAGCACCAGATATTTTACCCCATCAGACACAGAATGTTATTTCGAATA  
AC[C/G]AAAAAAGGAATTTTTTCTCTAAGTTTCTTGAAGTGGAAAATGAAT  
CATATTTTCTCAGTCCTGAGGCTGCAATTTTGTGCCTCTAGTAACATATAA  
GAATAGATGTGATGCCAGTGCCAGTAGCTGCTGCAATTGTTACTTGGGG  
ACCTGTTTATTCTACTAAGCACTTCACCCAGTGATAAATTTGTAGGGGCCT

SG13S146

CCGTGTCCATTAGATCAGTGGAATTTCTGGGATTGAGAGCACTTTG  
CAAGGTCAGCAGGGGTCTGCTCTTTCTGTCCTGTTCTGGTTTTTGGTTGTG

CCTGGATTCCAGGGTAGGTTTCTCATCTGTTACCTTCATAGACTTCTCCAG  
AAAAGGATCTTTTGACCATCAGAGGACCACGAAGATTCCATTGGTGAGG[  
C/T]GCAGATAACCTGATCTCTCTGGGTTCTCTGCAGGGCACAGATGAAGG  
GCTGGCCATTCCCAAGTTCTCAGTGGTACCACTGAGGCATGAGACCCTAA  
TGGTTTGCATGAGCAGTTTGAAAATTGCATCTTTGTTTTTACCTATATAATC  
ACATGAAACCCGTGGTTCTCAAACGTCAGCAGGCATCAGCATCACATG  
SG13S26

TCAGTGGTACCACTGAGGCATGAGACCCTAATGGTTTGCATGAGCA  
GTTTGAAAATTGCATCTTTGTTTTTACCTATATAATCACATGAAACCCGTG  
GTTCTCAAACGTCAGCAGGCATCAGCATCACATGGAGGGCTTGTTAAAC  
AGATTTCTGGGCCCCAACACAGAGTTTAAATTCTGAAGGCCTGAGGTGG  
G[C/T]GTGAACATTTGCATTTCTAACATGTTCTCGATGCTGCTGCCGCCTCT  
GGTCCCGAGAGCATGCCTGGAGAACTGCCACCTTCGACCATGGACTGTGA  
GAATTCACATGGACCTCAGAATTATAATCAGTCTCTCAGTTTTACAGATAA  
GGAACTAAATCCAGAGAGATTGTTTTGCCAATGGTGAACAGCTGGTTA  
SG13S27

ATGGTTTGCATGAGCAGTTTGAAAATTGCATCTTTGTTTTTACCTAT  
ATAATCACATGAAACCCGTGGTTCTCAAACGTCAGCAGGCATCAGCATCA  
CATGGAGGGCTTGTTAAACAGATTTCTGGGCCCCAACACAGAGTTTTAA  
ATTCTGAAGGCCTGAGGTGGGTGTGAACATTTGCATTTCTAACATGTTCTC  
[A/G]ATGCTGCTGCCGCCTCTGGTCCCGAGAGCATGCCTGGAGAACTGCCA  
CCTTCGACCATGGACTGTGAGAATTCACATGGACCTCAGAATTATAATCA  
GTCTCTCAGTTTTTACAGATAAGGAACTAAATCCAGAGAGATTGTTTTGCC  
AATGGTGAACAGCTGGTTAAAGTCAGGATGGAGACTTTAATCCTAGTCA  
SG13S147

GAGCAGTTTGAAAATTGCATCTTTGTTTTTACCTATATAATCACATG  
AAACCCGTGGTTCTCAAACGTCAGCAGGCATCAGCATCACATGGAGGGCT  
TGTTAAACAGATTTCTGGGCCCCAACACAGAGTTTAAATTCTGAAGGC  
CTGAGGTGGGTGTGAACATTTGCATTTCTAACATGTTCTCGATGCTGCTGC[  
C/T]GCCTCTGGTCCCGAGAGCATGCCTGGAGAACTGCCACCTTCGACCAT  
GGACTGTGAGAATTCACATGGACCTCAGAATTATAATCAGTCTCTCAGTTT  
TACAGATAAGGAACTAAATCCAGAGAGATTGTTTTGCCAATGGTGAACA  
GCTGGTTAAAGTCAGGATGGAGACTTTAATCCTAGTCAAGTGACCTTTC  
SG13S28

AGTTTGAAAATTGCATCTTTGTTTTTACCTATATAATCACATGAAAC  
CCGTGGTTCTCAAACGTCAGCAGGCATCAGCATCACATGGAGGGCTTGTT  
AAACAGATTTCTGGGCCCCAACACAGAGTTTAAATTCTGAAGGCCTGA  
GGTGGGTGTGAACATTTGCATTTCTAACATGTTCTCGATGCTGCTGCCGCC  
[G/T]CTGGTCCCGAGAGCATGCCTGGAGAACTGCCACCTTCGACCATGGAC  
TGTGAGAATTCACATGGACCTCAGAATTATAATCAGTCTCTCAGTTTTACA  
GATAAGGAACTAAATCCAGAGAGATTGTTTTGCCAATGGTGAACAGCTG  
GTTAAAGTCAGGATGGAGACTTTAATCCTAGTCAAGTGACCTTTCCTCT  
SG13S148

CATCTTTGTTTTTACCTATATAATCACATGAAACCCGTGGTTCTCAA  
ACGTCAGCAGGCATCAGCATCACATGGAGGGCTTGTTAAACAGATTTCT  
GGGCCCCAACACAGAGTTTAAATTCTGAAGGCCTGAGGTGGGTGTGAAC  
ATTTGCATTTCTAACATGTTCTCGATGCTGCTGCCGCCTCTGGTCCCGAGA[  
G/T]CATGCCTGGAGAACTGCCACCTTCGACCATGGACTGTGAGAATTCAC  
ATGGACCTCAGAATTATAATCAGTCTCTCAGTTTTACAGATAAGGAACT

FIG. 8.25

AAATCCAGAGAGATTGTTTTGCCAATGGTGAACAGCTGGTTAAAGTCAGG  
ATGGAGACTTTAATCCTAGTCAAGTGACCTTTCCTCTGTATTTATTTCCC  
SG13S98

ATTTCTGACATCCTGAACCATAGTAAAAGGGTGTTTTTTTGTTTTTT  
GAGACAGAGTCTTGCTCTGTTGCCTGGGCTGGAGTGCAGTGGTGTGATCTT  
GGCTCGCTGCAACCTCCGCCTCCCAGGTTCAAGTGATTCTCCTGCCTCAGC  
CTCCTGAGTAGCTGGGATTACAGGTGCTTGCCACCACACCTGGCTATTT[G/  
T]TTGTGTTTTTAGTAGAGACAGGGTTTACCATTGTTGGCCAGGCTGGTCTT  
GAACTCCTGACCTTGTGATCTGCCTGCCTCAGCCTCCCAAATTGCTGGGAT  
TACAAGGCGTGTTGTTTTAAGCCACTCAGTTTGTGGCCACTTGTACAGCA  
GCAAGAGGAACTCATACAGTTATCATGTGAACTCACAGGAATAT  
SG13S149

GATCTGCCTGCCTCAGCCTCCCAAATTGCTGGGATTACAAGGCGTG  
TTGTTTTAAGCCACTCAGTTTGTGGCCACTTGTACAGCAGCAAGAGGAA  
ACTCATACAGTTATCATGTGAACTCACAGGAATATGGTGAGTTAAAAAGA  
GAGGAAGGGTGCAAAACATCCACGGTAGAGTGAGAACTCTCCAGGGAGT  
GAG[A/G]ACTGTGCCCAGCATACAGTGATCACCTCTTAGTAAGCTAAGTT  
TCTGAGCACCAGCTTTTTTGAGTTGACTTTGTTGTCTTTAACATTTGAAGAT  
CACCTTCTTTGCTCAGCCTGGCTTGCAGACCTGGGCTGATTTGTGGATCT  
GATAGAAAAGTTTCCTTAGTTGGGCTCTTCTCCCCGACCACCCCCATGCC  
SG13S29

TGCCTCAGCCTCCCAAATTGCTGGGATTACAAGGCGTGTTGTTTTA  
AGCCACTCAGTTTGTGGCCACTTGTACAGCAGCAAGAGGAACTCATAC  
AGTTATCATGTGAACTCACAGGAATATGGTGAGTTAAAAAGAGAGGAAG  
GGTGCAAAACATCCACGGTAGAGTGAGAACTCTCCAGGGAGTGAGGACT  
GTGC[A/C]CAGCATACAGTGATCACCTCTTAGTAAGCTAAGTTTCTGAGC  
ACCAGCTTTTTTGAGTTGACTTTGTTGTCTTTAACATTTGAAGATCACCTT  
CTTTGCTCAGCCTGGCTTGCAGACCTGGGCTGATTTGTGGATCTGATAGAA  
AAGTTTCCTTAGTTGGGCTCTTCTCCCCGACCACCCCCATGCCAGTGTGGC  
SG13S89

GCTACTTTGCAGCCAAGGTAACCTCAGACTTCCCTTTGTTCAATTCTCC  
TTCTATAAAGTGCATCTCAAGGAGGTTCAAAGGGCAGGCTTTTTGTTGAA  
AGGACTTTGCCTGACCTCTGGCTCCCATCTGTGAAGCCCTGGAGAGGTGA  
GAGCCCTCGGGAGGCGGTGTTTCAGGCATGCTCTGCACCCGTGCAGAGCG  
C[A/G]TG TGATAATGCATTGCTAATGCTTGCTCCCTGGTGGCTGGCTGAGA  
GCTGCTGTGCTGACAAGGGTGGTTTAAAGGCTAAATGTGACTCAGAATCCT  
TAAGCAGTGTTAGTTCAGATACAAGGGCATTATAAATGAGAGTGCCTGAG  
GGATCTATTTTGGGACCGCTGTCACTTGGCTCTTCTGCTAATAAGCTTCCA  
SG13S96

ACAGTTATCAGCAGCCCACAGGCTTGACTTGAGCAAGTTGGAAAG  
ACAAATCAACTTCCAGAGTTGATTTAACATTGAGTGGAATCAGTCATAC  
TTTTGGTCCCCTTTCGGGGCCACGCCTGGCACTGTGCCTGGTGGCAGATCG  
GCATGAACTGGCCAGCTTCTGTGGCCCTGGAGGGCACAGGCAGAAAGGCC  
AC[A/G]CTCAGTCCCATGATGAACTGTTTAAAGACTTATTGTTGTCTCCCCGC  
TCTGTAAAGTAGATAGAGTGGATTTTATGTCCCTTATTACCTTTCAGGATA  
CTTTGACTCAGGGAGATAAAGTAACTTGGGTACAGCTACTCAGCTGGTGA  
AGAACACAGGCAGAATGAGTGCCTGGGTCTTTTGA CTTAAAATTCTGGAT  
SG13S150

CTGTGCCTGGTGGCAGATCGGCATGAACTGGCCAGCTTCTGTGGCC  
CTGGAGGGCACAGGCAGAAAGGCCACACTCAGTCCCATGATGAACTGTTT

AAGACTTATTGTTGTCTCCCCGCTCTGTAAAGTAGATAGAGTGGATTTTAT  
GTCCCTTATTACCTTTCAGGATACTTTGACTCAGGGAGATAAAGTAACTTG  
[C/G]GTACAGCTACTCAGCTGGTGAAGAACACAGGCAGAATGAGTGCCTG  
GGTCTTTTGACTTAAAATTCTGGATTTTTCACAAAGATCCTCTTACTTTATT  
CATTTACATAATAAATATATATTGAAGAGCTACTCTGTGCCAAGCCCTGTG  
CCTAGATATACAGTGATAAATAAAGAGTAGCTTCTAGAGGTCACCTGG  
SG13S401

AAGTTCAGTGATAGAGAGCAGAGGTGAGGCGGCAGCAGAAACCAC  
TTAAGGGACACCACGTGGCACTCCTTCTGTGCTGAGAAGGCTGTCAGTAA  
GCTCACCATTTATTTTCTATTTTCTCTCCTGAGTTAAATAGGAAACATGTCT  
CGCATTACTTGAAAAATCAAGTCAAACATATGCTCTTACTAGGAGTTATGGT  
[C/T]CTTTTTATGTCTTAGATGATGCTTGATCTAGATGAATGCCGACTTGCT  
GTAGCTAGATAAATACAATGGGAGTTTGAAGGTGTTTCGTAGCCCTGGAA  
ATAGGTATTTTCTGTCAAAACAAGCTTTGTTCATTGCCAGCAGACAAAAGC  
ATCAGTAACCTTGGTTGATAATCGTCATTTCTTAGGAATAAAGTAGACT  
SG13S151

GTATTTTCTGTCAAAACAAGCTTTGTTCATTGCCAGCAGACAAAAGC  
ATCAGTAACCTTGGTTGATAATCGTCATTTCTTAGGAATAAAGTAGACTGT  
AGAATTTTTTTTAGCAGAAAGGAAACCCAAAGATAATTCTAGTGCAAATC  
CCTCACTTTATAGAGCAGAAGCTCAAGTCCCAGAGGAACAAGTGGCTTGA  
A[C/T]GAACATCAGAATTTTAGGGGCTGGATTTGTACCCTCCTGGTGCCAG  
CAGCCCACTTCCCTGCAGGAGGCACTCACCTTCCTTGACAGGGGGTATGA  
GTGTGGCCATTTTCCACCCATAATCTCTGTAGCTCATGTTCAATTGGGTT  
CCCATTGAAAGAAAAATGGACCAGTAAGTTGGAGCAGAATCATTGAGATG  
SG13S30

AGCTTTGTTCATTGCCAGCAGACAAAAGCATCAGTAACCTTGGTTGA  
TAATCGTCATTTCTTAGGAATAAAGTAGACTGTAGAATTTTTTTTAGCAGA  
AAGGAAACCCAAAGATAATTCTAGTGCAAATCCCTCACTTTATAGAGCAG  
AAGCTCAAGTCCCAGAGGAACAAGTGGCTTGAACGAACATCAGAATTTTA  
G[G/T]GGCTGGATTTGTACCCTCCTGGTGCCAGCAGCCCACTTCCCTGCAG  
GAGGCACTCACCTTCCTTGACAGGGGTATGAGTGTGGCCATTTTCCACCC  
ATAATCTCTGTAGCTCATGTTCAATTGGGTTCCCATTTGAAAGAAAAATGG  
ACCAGTAAGTTGGAGCAGAATCATTGAGATGGTATAACATAAGGAAAAA  
SG13S31

TGTTTAAATTGCTTTTTATATCTGTAGCTCTAGATAACACTAGTTCCA  
GCTTAGTTAACTCCCAGCTCCAAGCCTTCAGGACTTCATAGAGTTATTGGG  
GTGCTGCTCTTGGCAGTTTCCCAAAAAGCTAGAATGCAGAGGGAATCTCC  
TTCCCAAAAAGCTAGAATGCAGAGGGAATCTCCTTCCCAAAAAGGCTAGAA  
[C/T]GCAGAGGGAATCTCCTTCCCAAAAAGCTAGAATGCAGAGGGAATCT  
CCTTCCCAAAAAGGCTAGAACGCAGAGGGAATCTCCTTCCCAAAAAGGCTAG  
AACGCAGAGGGAATCTCCTTCCCAAAAAGGCTAGAATGCAGAGGGAATGT  
CCTTCTCTTCTAAATGGTAGCTGTAGTTCAAGAAAGGTTAAACATTGTGC  
T

SG13S152

GCTGCGTTTGCTGGACTGATGTACTTGTGTTGTGAGGCAAAAGTACT  
TTGTGCGTTACCTAGGAGAGAGAACGCAGAGGTAGGTAACCTGGGACTACT  
AAAGAAGTGTGGAGCGATTCTGATTTTTGAGCAGGAAGAGTGACAATTC  
AAAACAGTATTTGACTAGATTCACGGCTCCGTAGCATCCCCTTGGGTGGG  
AG[C/G]GGGAAGGCTGACTAGGACCTCTGATTCTTCTTCCCTGAGCTTTG  
AAGGCTCTGAAAATACAGCTGGGGGGACTTGCCAGTTTTCTTATTAAGC

FIG. 8.27



AATTCCTCCGCATGGTGCTGGCTTTCAAAGGGTGCTTCAGTGCTGTTTGCT  
GCACGTGCCTTGCAGCCCCACACCCTGCACTCCCGCCCTGCAGAGTCTGG  
C

SG13S402

GAGGCCAAAAGTACTTTGTCTGGTTACCTAGGAGAGAGAACGCAGAG  
GTAGGTAACCTGGGACTACTAAAGAACTGTGGAGCGATTCTGATTTTTGA  
GCAGGAAGAGTGACAATTCAAAACAGTATTTGACTAGATTACGGCTCCG  
TAGCATCCCCCTTGGGTGGGAGGGGGAAGGCTGACTAGGACCTCTGATTCT  
TCT[C/T]TCCCTGAGCTTTGAAGGCTCTGAAAATACAGCTGGGGGGACTTG  
CCCAGTTTTCTTATTAAGCAATTCCTCCGCATGGTGCTGGCTTTCAAAGGG  
TGCTTCAGTGCTGTTTGCTGCACGTGCCTTGCAGCCCCACACCCTGCACTC  
CCGCCCTGCAGAGTCTGGCGCTGGAATGACATTTTAGGTCTGGGTTCCCA  
G

SG13S403

TATCTTTCAGGGACCAGAAGAAAGAATGTTGGGAAAATAAGATGC  
AGTAAGATGCAGACATGACAGCAGGGTGACGCGGCTCACGCCTATAATCC  
CAGCACTTTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTCAGGAGTTTG  
AGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAAATATAC  
AAA[A/G]CATTAGCCAGGCATGGTGGTGGGCGCCTGTAATCCCAGCTACTC  
CATAGGCTGAGGCTGGAGAATCGCTTGAACCCAGGAGGCAGAGGTTGCA  
GTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGGCAACAAAAGCAAA  
ACTCCATCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAGATGCAGACACG  
AGACTG

SG13S153

TGGGCGCCTGTAATCCCAGCTACTCCATAGGCTGAGGCTGGAGAAT  
CGCTTGAACCCAGGAGGCAGAGGTTGCAGTGAGCCGAGATTGCGCCACTG  
CACTCCAGCCTGGGCAACAAAAGCAAACTCCATCTCAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAGATGCAGACACGAGACTGTGAACTGACTAGCAT  
CACC[A/T]TTGCATTGTTTATAGATGTTGCCAGACAGAAAGCCCCAAAGCA  
GCACAGTACCTTCCTGACATCTGGACTAGGAAATCTAGATTTTAGTAAAA  
TACATGCTAATACTTACAGAAGAAATGTCGGCGTTAGAGTATGCCGTCAG  
TTCCTTAGAGATTGCAATTCCTAATGCACTAGTATGGTTTCAGGTGCCAGG  
AAC

SG13S97

ACTCCATCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAGATGCAG  
ACACGAGACTGTGAACTGACTAGCATCACCATTGCATTGTTTATAGATG  
TTGCCAGACAGAAAGCCCCAAAGCAGCACAGTACCTTCCTGACATCTGGA  
CTAGGAAATCTAGATTTTAGTAAAATACATGCTAATACTTACAGAAGAAA  
TGTC[A/G]GCGTTAGAGTATGCCGTCAGTTCCTTAGAGATTGCAATTCCTA  
ATGCACTAGTATGGTTTCAGGTGCCAGGAACACGTTCTGTGAGGCTGCTG  
CCCCAGGTGCTGACCCACGCCTTCCACACCATTTTCCTTCCTTGTGTTTAC  
AGCCGCTCTGTCTTTTACAATAGCACCCCTCTCTAGTGGCTAATGGGCTCT  
AT

SG13S154

AAAAAAAAAAAAAAAAAAAAAAAAAAGATGCAGACACGAGACTGTGAA  
ACTGACTAGCATCACCATTGCATTGTTTATAGATGTTGCCAGACAGAAAG  
CCCCAAAGCAGCACAGTACCTTCCTGACATCTGGACTAGGAAATCTAGAT  
TTTAGTAAAATACATGCTAATACTTACAGAAGAAATGTCGGCGTTAGAGT  
ATGC[C/T]GTCAGTTCCTTAGAGATTGCAATTCCTAATGCACTAGTATGGTT  
TCAGGTGCCAGGAACACGTTCTGTGAGGCTGCTGCCCCAGGTGCTGACCC

CAGCCTTCCACACCATTTTCCTTCCTTGTGTTACAGCCGCTCTGTCTTTTA  
CAATAGCACCCCTCTCTAGTGGCTAATGGGCTCTATGATTAGATAGCATCC  
SG13S40

TTTCAGGTGCCAGGAACACGTTCTGTGAGGCTGCTGCCCCAGGTGC  
TGACCCCAGCCTTCCACACCATTTTCCTTCCTTGTGTTACAGCCGCTCTGT  
CTTTTACAATAGCACCCCTCTCTAGTGGCTAATGGGCTCTATGATTAGATA  
GCATCCTTCAGTAGTGATAAAGGCAGTGACATCCTAGGGAGGTCAGCGG[  
G/T]TGAAAGCGCTATATCTGGAAAACCTGAGAGCCTGTGAAGCTCAAGGA  
CTTGACGGGGTTAGACCGTGAGCCGGGCTGCAGCTGGAAAAAGAATGACT  
GTTCTTTCAGCAGATCCTTCCCTGTGCCATCTCTTTCTTCATTCTCTCTAG  
TGGCATTCTTATTTATCCTCTAAAACCACAATTCCATTATCTCTCTA  
SG13S155

GAGGGTCTTCTCTTTTGCCTGGCTCCCTATGCAGCCCTATCTTACCC  
CCTGCAAAGTCCCAGGGATGTGGCTCAGTCACTGCTCCTCTCTTCATCTGT  
CACCATTGCTTGAGATCCTACAGCTGCTTTAATTCCGAGACCATCTGCAG  
AACATGACAAAATTTGTCCACCTACCCACATGTCCTTTTAACTTTAAAG[A/  
G]CTTTACTAACTGATTCTTATTAGGGAATGAACAGAGGTGGCAAAAATAA  
ACAATAGGAGATTGATTTACAAGAAATCTTTAAAATAGTAGATTTCTTCG  
GACCTCATTGAAATATAAATGGCCTGCCTTCTTGTGTCCCTCCCTGGTCTC  
CCTCTTTAGGTGATAAGAAGAAGATCCTGCCAGCCCCATAACCCGCC  
SG13S156

TTAAAATAGTAGATTTCTTCGGACCTCATTGAAATATAAATGGCCT  
GCCTTCTTGTGTCCCTCCCTGGTCTCCCTCTTTAGGTGATAAGAAGAAGAT  
CCTGCCAGCCCCATAACCCGCCATCTGCGCGGGTTCTAGACCCCTTCTCC  
TCCCCTCTGGCCGTGGTAGGCATTACTGATGAATCATGGTGCTCTTTCTT[A/  
C]CAGAGACCAAACCTGGCCTCGGAATCCTTCTTAACACAGATACTGCTT  
AACACAACCACTCTGAGCAGCTGTCATAAGTAGAAGTAATAGATACTAGA  
AGAAATGTCTAAGCCTAATCTAGACCAAAATACGGCCTGATATAGATGCA  
AGCCAGAGGGGCTTTATGGTTAAATGCAAGGAGATTTTCAACCCTGCCG  
SG13S157

CTGGTCTCCCTCTTTAGGTGATAAGAAGAAGATCCTGCCAGCCCCA  
TAACCCGCCATCTGCGCGGGTTCTAGACCCCTTCTCCTCCCCTCTGGCCG  
TGGTAGGCATTACTGATGAATCATGGTGCTCTTTCTTCCAGAGACCAAACC  
TGGCCTCGGAATCCTTCTTAACACAGATACTGCTTAACACAACCACTCTG[  
A/G]GCAGCTGTCATAAGTAGAAGTAATAGATACTAGAAGAAATGTCTAAG  
CCTAATCTAGACCAAAATACGGCCTGATATAGATGCAAGCCAGAGGGGCT  
TTATGGTTAAATGCAAGGAGATTTTCAACCCTGCCGTCTAGAAGCTACTTG  
CTGAGATCTTCTTCAGTTGGGCCCCATCTCCTCCCCAGGCCTCTCTTCTG  
SG13S158

CCATAACCCGCCATCTGCGCGGGTTCTAGACCCCTTCTCCTCCCCT  
CTGGCCGTGGTAGGCATTACTGATGAATCATGGTGCTCTTTCTTCCAGAGA  
CCAAACCTGGCCTCGGAATCCTTCTTAACACAGATACTGCTTAACACAAC  
CACTCTGAGCAGCTGTCATAAGTAGAAGTAATAGATACTAGAAGAAATGT  
[A/C]TAAGCCTAATCTAGACCAAAATACGGCCTGATATAGATGCAAGCCA  
GAGGGGCTTTATGGTTAAATGCAAGGAGATTTTCAACCCTGCCGTCTAGA  
AGCTACTTGCTGAGATCTTCTTCAGTTGGGCCCCATCTCCTCCCCAGGCCTC  
TCTTCTGTTCCCTGGGCTATGTCACACTTGGACTCTGCAGACACCTAATGC  
SG13S159

TGGTAGGCATTACTGATGAATCATGGTGCTCTTTCTTCCAGAGACC  
AAACCTGGCCTCGGAATCCTTCTTAACACAGATACTGCTTAACACAACCA

FIG. 8.29

CTCTGAGCAGCTGTCATAAGTAGAAGTAATAGATACTAGAAGAAATGTCT  
AAGCCTAATCTAGACCAAAATACGGCCTGATATAGATGCAAGCCAGAGG  
GGC[G/T]TTATGGTTAAATGCAAGGAGATTTTCAACCCTGCCGTCTAGAAG  
CTACTTGCTGAGATCTTCTTCAGTTGGGCCCCATCTCCTCCCCAGGCCTCTCT  
TCTGTTCCCTGGGCTATGTCACACTTGGACTCTGCAGACACCTAATGCTCTT  
GGGACCTGCTTTAGTTCTTGACCTCACCAACCGAGGAGGAATTGCTAGAT  
SG13S160

CAGAGACCAAACCTGGCCTCGGAATCCTTCTTAACACAGATACTGC  
TTAACACAACCACTCTGAGCAGCTGTCATAAGTAGAAGTAATAGATACTA  
GAAGAAATGTCTAAGCCTAATCTAGACCAAAATACGGCCTGATATAGATG  
CAAGCCAGAGGGGCTTTATGGTTAAATGCAAGGAGATTTTCAACCCTGCC  
GT[C/T]TAGAAGCTACTTGCTGAGATCTTCTTCAGTTGGGCCCCATCTCCTCC  
CCAGGCCTCTCTTCTGTTCCCTGGGCTATGTCACACTTGGACTCTGCAGACA  
CCTAATGCTCTTGGGACCTGCTTTAGTTCTTGACCTCACCAACCGAGGAGG  
AATTGCTAGATGAGATCCTTCCCCCGGAATTTCTCTCTTGAACCCAGAG  
SG13S32

GGGCTTTATGGTTAAATGCAAGGAGATTTTCAACCCTGCCGTCTAG  
AAGCTACTTGCTGAGATCTTCTTCAGTTGGGCCCCATCTCCTCCCCAGGCCT  
CTCTTCTGTTCCCTGGGCTATGTCACACTTGGACTCTGCAGACACCTAATGC  
TCTTGGGACCTGCTTTAGTTCTTGACCTCACCAACCGAGGAGGAATTGCT[  
A/C]GATGAGATCCTTCCCCCGGAATTTCTCTCTTGAACCCAGATGGTCCG  
TTGCCCTTTCCAGAAGTTGCTCCAGCCCTGTCCGCTTAGGAAGTTCAGTG  
TCATCCTTGATCCAGTGGGTAGGGAAGACATTCCATAATGAATGCCCCAG  
TCTGAGCTTCTTCCCTTCAGGCTTCAGGCTGCCCTGCGAGGATTTTGCA  
SG13S161

GTAGCTGAGACTACAGGTGTGCACTACCACACCCAGCTAATTTTTT  
GTATTTTTAGTAGAGATAGGGTTTAGCTATGTTGGCCAGGCTGGTCTCGAA  
CTGCTGAACTCAAGCAATCTGCCATCCCCGGCCTCCCAAAGTACTGGGAG  
TATAGGCATAAGCCACCCATGATGCCAGCCTGAATCTTGGTTTCTTCCCC  
[A/G]TTCATTTAAGCTATTACCTGGGCCTGAACTCAATGGCACCTGGCACC  
AACTGGCAACTGACTCTTGGTCTTTTATTACCTACCTTCCCTAGCAGGCAC  
TGGGTGCTCCCTCTTCCCTATCCCATGGAGTCCTGTCTCTGTTGGGGCTCC  
TACTGATCCTCTTGGCAATATGAAGTTCTCAGCTCAATGGTGGGTGG  
SG13S162

CCCGGCCTCCCAAAGTACTGGGAGTATAGGCATAAGCCACCCATG  
ATGCCCAGCCTGAATCTTGGTTTCTTCCCCATTCAATTTAAGCTATTACCTG  
GGCCTGAACTCAATGGCACCTGGCACCAACTGGCAACTGACTCTTGGTCT  
TTTATTACCTACCTTCCCTAGCAGGCACTGGGTTGCTCCCTCTTCCCTATCCC  
[A/G]TGGAGTCCTGTCTCTGTTGGGGCTCCTACTGATCCTCTTGGCAATAT  
GAAGTTCTCAGCTCAATGGTGGGTGGGCAATGACTGCCAACTCTTGAGGC  
CAATGAACTCAGGTTACCCCACTCCTCCTCCTCCTGAGTTGCTCACTCACT  
CCTCATTCACTCAACATTGATTCAGTAGATATTTGCTACCTGCTCTGT  
SG13S163

CCGGCCTCCCAAAGTACTGGGAGTATAGGCATAAGCCACCCATGAT  
GCCAGCCTGAATCTTGGTTTCTTCCCCATTCAATTTAAGCTATTACCTGGG  
CCTGAACTCAATGGCACCTGGCACCAACTGGCAACTGACTCTTGGTCTTTT  
ATTACCTACCTTCCCTAGCAGGCACTGGGTTGCTCCCTCTTCCCTATCCCA[C  
/T]GGAGTCCTGTCTCTGTTGGGGCTCCTACTGATCCTCTTGGCAATATGA  
AGTTCTCAGCTCAATGGTGGGTGGGCAATGACTGCCAACTCTTGAGGCCA

FIG. 8.30

ATGAACTCAGGTTACCCCACTCCTCCTCCTGAGTTGCTCACTCACTCC  
TCATTCACTCAACATTGATTAGTAGATATTTGCTACCTGCTCTGTG  
SG13S164

GGCATAAGCCACCCATGATGCCCAGCCTGAATCTTGGTTTCTTCCC  
CATTCAATTAAGCTATTACCTGGGCCTGAACTCAATGGCACCTGGCACCAA  
CTGGCAACTGACTCTTGGTCTTTTATTACCTACCTTCCCTAGCAGGCACTG  
GGTTGCTCCCTCTTCCTATCCCATGGAGTCCTGTCCTCTGTTGGGGCTCC[C/  
T]ACTGATCCTCTTGGCAATATGAAGTTCTCAGCTCAATGGTGGGTGGGCA  
ATGACTGCCAACTCTTGAGGCCAATGAACTCAGGTTACCCCACTCCTCCTC  
CTCCTGAGTTGCTCACTCACTCCTCATTCACTCAACATTGATTAGTAGAT  
ATTTGCTACCTGCTCTGTGCCAGGTACCAGGTCAGTTGCTGAAGGA  
SG13S165

CCTGGCACCAACTGGCAACTGACTCTTGGTCTTTTATTACCTACCTT  
CCCTAGCAGGCACTGGGTTGCTCCCTCTTCCTATCCCATGGAGTCCTGTCC  
TCTGTTGGGGCTCCTACTGATCCTCTTGGCAATATGAAGTTCTCAGCTCAA  
TGGTGGGTGGGCAATGACTGCCAACTCTTGAGGCCAATGAACTCAGGTT[A/  
T]CCCCACTCCTCCTCCTGAGTTGCTCACTCACTCCTCATTCACTCAAC  
ATTGATTAGTAGATATTTGCTACCTGCTCTGTGCCAGGTACCAGGTCAGT  
TGCTGAAGGAGTAACAGTGAACATGACGGAGTCTTTGTCCCCAAGGAGAC  
CCAAGGTGTCTCCTAGAGCCAGGGGCACATTGCAAGACCAAATATA  
SG13S166

CTGGCAACTGACTCTTGGTCTTTTATTACCTACCTTCCCTAGCAGGC  
ACTGGGTTGCTCCCTCTTCCTATCCCATGGAGTCCTGTCCTCTGTTGGGGC  
TCCTACTGATCCTCTTGGCAATATGAAGTTCTCAGCTCAATGGTGGGTGGG  
CAATGACTGCCAACTCTTGAGGCCAATGAACTCAGGTTACCCCACTCCT[C/  
T]CTCCTCCTGAGTTGCTCACTCACTCCTCATTCACTCAACATTGATTAGT  
AGATATTTGCTACCTGCTCTGTGCCAGGTACCAGGTCAGTTGCTGAAGGA  
GTAACAGTGAACATGACGGAGTCTTTGTCCCCAAGGAGACCCAAGGTGTC  
TCCTAGAGCCAGGGGCACATTGCAAGACCAAATATATTCAACTTACC  
SG13S167

CCATGGAGTCCTGTCCTCTGTTGGGGCTCCTACTGATCCTCTTGGCA  
ATATGAAGTTCTCAGCTCAATGGTGGGTGGGCAATGACTGCCAACTCTTG  
AGGCCAATGAACTCAGGTTACCCCACTCCTCCTCCTCCTGAGTTGCTCACT  
CACTCCTCATTCACTCAACATTGATTAGTAGATATTTGCTACCTGCTCT[A/  
G]TGCCAGGTACCAGGTCAGTTGCTGAAGGAGTAACAGTGAACATGACGG  
AGTCTTTGTCCCCAAGGAGACCCAAGGTGTCTCCTAGAGCCAGGGGCACA  
TTGCAAGACCAAATATATTCAACTTACCAAAATAATCATAGACCTAGTTCT  
CAAAAAGCAAGAAGACTGATTCTCGTTGTCATTTCTCCTCCTCAGCA  
SG13S168

TTAGAGTCTGTGGGCCCTCCAAGTGTGGAGTATGGTGTACTTCA  
CCAGAGTTTGAGGAGAAACATTCTTCTTTTGGGAAGGCCGGGGAGCATAGA  
TGGATATCAAGGCTGCTGTTTCTAAAAGCGAAACCCACCAAACAACAGTA  
TTAGAATCATCTGTGGTGCTTATTAAAGATACAGATTCCTGGGCCCCATCC  
C[A/C]GACTTATGAATCAGAATCTCTGCCAGAGGAAGCCTGAGAATTTGCA  
TTCTCAGATGATTCTGCATTCTCAGATAACACATTCTTTAGGTGATTCTTAC  
ACACACTGGAGTTTGGGAATCGCTGAAGGCTGTTCACTTCTCTTTTCTGAG  
AAATGATTCAATTCATTTCAGAAATATTTGCAGAGGTCCTTATTTATTG  
SG13S33

TGGCCTCATTCGTGTGATAAATCTGAGCCACCACGATATTTGACTTT  
TCACAATTTAATTTATCTGAACCCTCTATTCTCTGGCTAAAAAATATCCCT

FIG. 8.31

TACTTGGACTTCTTTATTTTATTTTCAATTCCTTACCAGCACTAGCAGGGG  
ACTCTGTACTCATCTGCTGGCGCTGCCATAACAAAGCACTGCAGCCTG[G/T  
]GGGGCTCAAACCACAGAATTTATTCTCTCACAGTCCTAGAGGCTAGAAGT  
CCAAGATCAAAGTGTGGGCAGGGTCGGTTTCTCCTGCAGCCTCTCTCCTTG  
GCTTATAGAGTGCCACCTTCTACCTGTGTCTTCACATCATCACCTCACTGA  
GCATGTCTGTGTCCAAATCTCCCCTTCTTATAAGACCCCAGTCAT  
SG13S41

TCTCCTTGGCTTATAGAGTGCCACCTTCTACCTGTGTCTTCACATCA  
TCACCTCACTGAGCATGTCTGTGTCCAAATCTCCCCTTCTTATAAGACCCC  
AGTCATACTGGATGAGGATCCACCCATATGAGTTCATTTTACCTTAATTAT  
CTCTTTAAACACCCTGTCTCCAAATACAGTCCCATTCTGAGGAACTGAG[A/  
G]GTAAAGATTCAACATATGAATTTTGGAAAGGGACCTAATTCAGCCCACA  
ACACCCTCTTTTGGGATGTTTATTTTCCCCCTTAAGGAGCTAGTTAGGATG  
TCTTATCTCATGAACATGACTGTGAACAGGAAAACAGGGAGAGAATGAA  
GCTGGCCAAGGAACAGGGCTGGTGTGCTAGCTAGCAGTGCTTTTCTGATGT  
SG13S169

CATTTTACCTTAATTATCTCTTTAAACACCCTGTCTCCAAATACAGT  
CCCATTCTGAGGAACTGAGAGTAAAGATTCAACATATGAATTTTGGAAAGG  
GACCTAATTCAGCCCACAACACCCTCTTTTGGGATGTTTATTTTCCCCCTT  
AAGGAGCTAGTTAGGATGTCTTATCTCATGAACATGACTGTGAACAGGAA[  
A/G]ACAGGGAGAGAATGAAGCTGGCCAAGGAACAGGGCTGGTGTGCTAGCT  
AGCAGTGCTTTTCTGATGTGAGTGGGTCCACAGGGAGCTTGTTAAAATG  
CAGATTCTGATTCAATTAGGTTCCAGAGGGACCTGAGATTTCCCATTTCTGA  
CAAGTTTCCAGTGTGGGGGCTGATGCTGCTGGTCCACGGACCATACTTTG  
SG13S404

GGGAGAGAATGAAGCTGGCCAAGGAACAGGGCTGGTGTGCTAGCTAG  
CAGTGCTTTTCTGATGTGAGTGGGTCCACAGGGAGCTTGTTAAAATGCA  
GATTCTGATTCAATTAGGTTCCAGAGGGACCTGAGATTTCCCATTTCTGACA  
AGTTTCCAGTGTGGGGGCTGATGCTGCTGGTCCACGGACCATACTTTGAGT  
A[G/T]CAAGGAGCTTGATACATAATGGCTGAGTGACTTTCAGACTCCTGCT  
GTAGAAAAATTATGAGTTGGCTGGGCGTGGTGGCTCACGCCTGTAATCCC  
AGCACTTTGGGAGGCCGAGGTGGGCAGATCACCTGAGGTCAGGAGTTCTGA  
GACCAGCCTGGCCAACATGGTGAAACACCATCTCTACCAAAAATACAAAA  
A  
SG13S170

ACTTAAGCCCAGAAGACTGAGGTTGCAGTGAGCCGAGATTGCACC  
ACTGCACTCCAGCTTGGGCTACAGAGTGAGACTCTATCTCAAAAACAAAG  
AAACAACAACAACAATAACAACAAAAACCAAGTCTCTCCCTCCACTCAA  
AAATGCAAGGGCCTGTCTCCCATTGCTGGGTGCCCAGGTCTCATGAATGT  
AGA[C/T]ATGAATTATTCCAGTCAGCCTCAGGAGAATAGAATGAGCCCTCA  
GATGCCGAAGCACCTTTCAGATTCCACCGGTTTTATCGGCTCATTTAACCT  
TCACTTCTAACACAGTCCTGCATTACACACGTGTCTGTCGTTATGGGCAGC  
TGCAGAGAGGGTCTTAATGGTCCTAATGCTCAGTGAGGATGCCCAATGGT  
C  
SG13S171

CTCAAAAACAAAGAAACAACAACAACAATAACAACAAAAACCA  
AGTCTCTCCCTCCACTCAAAAATGCAAGGGCCTGTCTCCCATTGCTGGGTG  
CCCAGGTCTCATGAATGTAGATATGAATTATTCCAGTCAGCCTCAGGAGA  
ATAGAATGAGCCCTCAGATGCCGAAGCACCTTTCAGATTCCACCGGTTTT  
ATC[A/G]GCTCATTTAACCTTCACTTCTAACACAGTCCTGCATTACACACGT

FIG. 8.32

GTCTGTCGTTATGGGCAGCTGCAGAGAGGGTCTTAATGGTCCTAATGCTC  
AGTGAGGATGCCCAATGGTCAACAGAACCTGCCATCTTCAGGCCATCAAG  
GAGCTCTGGAGTTAAGGAAATCATGAGAGCACAGAGGGGCGGGTACAGC  
AGA

SG13S172

TGTAGATATGAATTATTCCAGTCAGCCTCAGGAGAATAGAATGAGC  
CCTCAGATGCCGAAGCACCTTTCAGATTCCACCGGTTTTATCGGCTCATTT  
AAACTTCACTTCTAACACAGTCCTGCATTACACACGTGTCTGTCGTTATGG  
GCAGCTGCAGAGAGGGTCTTAATGGTCCTAATGCTCAGTGAGGATGCCCA  
[A/G]TGGTCAACAGAACCTGCCATCTTCAGGCCATCAAGGAGCTCTGGAGT  
TAAGGAAATCATGAGAGCACAGAGGGGCGGGTACAGCAGAGCCCTCGTG  
GTAATGGGTTTTGAGGTCTAGGCTCTCTTCACTTGGGTTTGAAATAAGTTC  
AATGACTAGTAATAGCTGAGACACTTCTACCCTTCAAATGAAGTAAATGG  
SG13S173

AGCACCTTTCAGATTCCACCGGTTTTATCGGCTCATTTAAACTTCAC  
TTCTAACACAGTCCTGCATTACACACGTGTCTGTCGTTATGGGCAGCTGCA  
GAGAGGGTCTTAATGGTCCTAATGCTCAGTGAGGATGCCCAATGGTCAAC  
AGAACCTGCCATCTTCAGGCCATCAAGGAGCTCTGGAGTTAAGGAAATCA  
[A/T]GAGAGCACAGAGGGGCGGGTACAGCAGAGCCCTCGTGGTAATGGGT  
TTTGAGGTCTAGGCTCTCTTCACTTGGGTTTGAAATAAGTTCAATGACTAG  
TAATAGCTGAGACACTTCTACCCTTCAAATGAAGTAAATGGGAAAATGGA  
GCATTGTTGAGTCCAGGGAGCTATAATTTAAACCCCATATATCTAAAAGG  
SG13S42

CACACGTGTCTGTCGTTATGGGCAGCTGCAGAGAGGGTCTTAATGG  
TCCTAATGCTCAGTGAGGATGCCCAATGGTCAACAGAACCTGCCATCTTC  
AGGCCATCAAGGAGCTCTGGAGTTAAGGAAATCATGAGAGCACAGAGGG  
GCGGGTACAGCAGAGCCCTCGTGGTAATGGGTTTTGAGGTCTAGGCTCTC  
TTC[A/G]CTTGGGTTTGAAATAAGTTCAATGACTAGTAATAGCTGAGACAC  
TTCTACCCTTCAAATGAAGTAAATGGGAAAATGGAGCATTGTTGAGTCCA  
GGGAGCTATAATTTAAACCCCATATATCTAAAAGGGGTAACATTTTTGTGT  
GTGTGAAATTGGTGTCATTTCGCACTGCATCTACAGTTTTCTTTTCTTCTC  
SG13S194

ACATATTTGGGAAACGCATCATACTCTTCCTGTTCCCTCATGTCCGTT  
GCTGGCATATTCAACTATTACCTCATCTTCTTTTTTCGGAAGTGACTTTGAA  
AACTACATAAAGACGATCTCCACCACCATCTCCCCTCTACTTCTCATTCCC  
TA ACTCTCTGCTGAATATGGGGTTGGTGTTCTCATCTAATCAATACCTA[C/  
T]AAGTCATCATAATTCAGCTCTTGAGAGCATTCTGCTCTTCTTTAGATGGC  
TGTAATCTATTGGCCATCTGGGCTTCACAGCTTGAGTTAACCTTGCTTTT  
CCGGGAACAAAATGATGTCATGTCAGCTCCGCCCCTGAACATGACCGTG  
GCCCCAAATTTGCTATTCCCATGCATTTTGTTTGTCTTCACTTA  
SG13S195

TGGTGTTCTCATCTAATCAATACCTACAAGTCATCATAATTCAGCTC  
TTGAGAGCATTCTGCTCTTCTTTAGATGGCTGTAAATCTATTGGCCATCTG  
GGCTTCACAGCTTGAGTTAACCTTGCTTTTTCCGGGAACAAAATGATGTCAT  
GTCAGCTCCGCCCCCTGAACATGACCGTGGCCCCAAATTTGCTATTCCC[A/  
G]TGCATTTTGTTTGTCTTCACTTATCCTGTTCTCTGAAGATGTTTTGTGA  
CCAGGTTTGTGTTTTCTTAAAATAAAATGCAGAGACATGTTTAAAGCTGAT  
AGTTGAGGGGTTTTGTAAATGGCTTTTGGGGGATTTATCTCTATACCCACA  
AACGACTAGTTTGTCTTCTCAAATAAATGATAATATTAATAA

FIG. 8.33

SG13S174

TTATCTCTATACCCACAAACGACTAGTTTGTTCCTCAAACCTAAAT  
GATAATATTAATAACACATCCTGGCCAGGTGTGGTGGCTCATACCTGT  
AATCCCAGCACTTTGGGAGGCCGAGGCAGGTGGATCACTTGAGGTCAGGA  
ATTAAGACCAGCCTGGCCAATATGGTGAAAGCCTGTCTGTACTAAAAATA  
C[A/G]AAAATTAGCCAGGTATGCTGGTGGATGCTTATAATCCCAGCTACTT  
GGGAGGTTGAGGCAGGAGAATTGCTTGAACCCGGGAGGTTAGAGGTTGCA  
GTGAGCCAAGATCATGCCACTGCACTCCAGCTTGGGCAACAGAGTGAGAC  
TCCATCTCAAATTAATAAATAACACATCTGGCTTCTGGAAAAATTACTT  
GA

SG13S34

GATCATGCCACTGCACTCCAGCTTGGGCAACAGAGTGAGACTCCAT  
CTCAAATTAATAAATAACACATCTGGCTTCTGGAAAAATTACTTGAAGA  
TCTTTTATGACATCCATCCCTCTTCACACAGCCATGTGAATTAGGTTGGTA  
TCTTCATATACTAGCATCGTGCCCAGCACTTCCATGTTATACAGTTTAAAA[  
G/T]GTTCTGTAATTCCTGTGGGAACCTAAGATAATGCGAGGACCGTCAT  
ACGTGCCCCCAAATATTGGCAAACCAATGAATAAATGAATGAATGAGTTT  
ATGAATCGCTAACTGGCTGTATTTAATGAAGTATGTGTGTTGAGCCATTTT  
CCACAGTGTGGACAGATTTGTCCCAATATGGGCCTCTTCCCAAAGGC  
SG13S175

AATTAATAAATAACACATCTGGCTTCTGGAAAAATTACTTGAAGA  
TCTTTTATGACATCCATCCCTCTTCACACAGCCATGTGAATTAGGTTGGTA  
TCTTCATATACTAGCATCGTGCCCAGCACTTCCATGTTATACAGTTTAAAA  
TGTTCTGTAATTCCTGTGGGAACCTAAGATAATGCGAGGACCGTCATAC[  
A/G]TGCCCCCAAATATTGGCAAACCAATGAATAAATGAATGAATGAGTTT  
ATGAATCGCTAACTGGCTGTATTTAATGAAGTATGTGTGTTGAGCCATTTT  
CCACAGTGTGGACAGATTTGTCCCAATATGGGCCTCTTCCCAAAGGCC  
CTACCACCTAATGCCATCACACTGGGGATTTGATTTCAACATGTGAATT  
SG13S176

AGTTCATAGTGACAGTGATCCAGCCACTGTCATGACAGGTGCCACT  
TGGCAGAAACAGCACAGCTTGGGAAGATGGCGGGGTGTAGTCAAGATTCC  
AGGATCCCCAACAGAGAAGCCAGCTCTTATAGGGGAGCCATTCATCAGGA  
TTGAACTCTCAATCGAGCTGGACAGTAATAGGTGGGTCTGTGTTATTTCCC  
AG[A/G]TGAGTATCATGACAGTCACAATCCTAGGAAGGATGTGAAGCCTC  
CCCCAGCTCTCCTCCAGTTGCCTGCTTGGGCAGCAGAGATGATGGAATGT  
GGAGTCTGGCGTGGTCTGAGGCCTGAATCCATGTGCCTCATGTATGATGCT  
CAGGCAAGAGGATCTCTCAATTCAAGGGAGAGGGCCTGAATGAGCCTTGC  
TT

SG13S177

CTTGGCAGAAACAGCACAGCTTGGGAAGATGGCGGGGTGTAGTCAA  
GATTCCAGGATCCCCAACAGAGAAGCCAGCTCTTATAGGGGAGCCATTCA  
TCAGGATTGAACTCTCAATCGAGCTGGACAGTAATAGGTGGGTCTGTGTT  
ATTCCCAGATGAGTATCATGACAGTCACAATCCTAGGAAGGATGTGAAG  
CCT[C/T]CCCCAGCTCTCCTCCAGTTGCCTGCTTGGGCAGCAGAGATGATG  
GAATGTGGAGTCTGGCGTGGTCTGAGGCCTGAATCCATGTGCCTCATGTA  
TGATGCTCAGGCAAGAGGATCTCTCAATTCAAGGGAGAGGGCCTGAATGA  
GCCTTGCTTCCAGGCCTGTCTGATGGTCCAGGCTGAAGCCCCCTCCTGGCT  
TG

SG13S178

CTGGCGTGGTCTGAGGCCTGAATCCATGTGCCTCATGTATGATGCT

CAGGCAAGAGGATCTCTCAATTCAAGGGAGAGGGCCTGAATGAGCCTTGC  
TTTCCAGGCCTGTCTGATGGTCCAGGCTGAAGCCCCTCCTGGCTTGCACTG  
CCAGACCTCATCCAGCAGGAGCTCCTTGGCATTGACTGCTTCAGGATAGTT  
[C/G]CTTCTGCTCTGAGTGCTCTCTAAAGAGCAGTGCTCTACCATCCAAGC  
TGGGCTTTTCTTTTCTTCTTGCTGATAGGGAAGGCATGGGACATTGCAGGA  
TGGAAGTGGCCCCCAGGCCTTCTCATGCCTGGGCTTGGTTTGGAAGGTGG  
TCAGGTGATCAATAATCCTGATTGGCCTGGCATTGAGGAGTTTTCCTGG  
SG13S35

TGCTCTCTAAAGAGCAGTGCTCTACCATCCAAGCTGGGCTTTTCTTT  
TCTTCTTGCTGATAGGGAAGGCATGGGACATTGCAGGATGGAAGTGGCCC  
CCAGGCCTTCTCATGCCTGGGCTTGGTTTGGAAGGTGGTCAGGTGATCAAT  
AATCCTGATTGGCCTGGCATTGAGGAGTTTTCCTGGGATGTGGTCCTTTC[A/  
/G]GTTTTTTAAAAATTATTTTATTGATACACATATTTGTAGGTATTTGTGG  
GGTGCATGTGATACTTTATTATGTGTGTGGATTGTGTAATGATGAAGTCAG  
GGCATTTAGGGTCTTCATCACCTTGATTATCATTTCTATGTGTTGAGAACAA  
TTTCAAGTTCTCAGTTCCAGCTATTTTGAAATAGACAGTCCATTT  
SG13S179

GATACTTTATTATGTGTGTGGATTGTGTAATGATGAAGTCAGGGCA  
TTTAGGGTCTTCATCACCTTGATTATCATTTCTATGTGTTGAGAACATTTCA  
AGTTCTCAGTTCCAGCTATTTTGAAATAGACAGTCCATTTTGTAGCTACA  
GTCACCCAACCCGGCTGTCAGACATTGGAACCTTACTCCTATTGAACTGT[A/  
G]TATTTGTACCCATTACCAAACCTCTCTTTGGGCTTTCAGTTTACAACCTG  
GGATGATCCTGGGAAAACCTAAAGTAAATCAGACACCCGACGTGTGAGCTA  
GGTTATAATATGCCCAGTGGACCCTGGGGACATCTTAGCTTTCAGAGGTC  
ATGCTGTCCAAGCTGACTGTGGGGCTTCCAGAAGGTGGGGAGAGGAA  
SG13S180

TATGTGTGTGGATTGTGTAATGATGAAGTCAGGGCATTTAGGGTCT  
TCATCACCTTGATTATCATTTCTATGTGTTGAGAACATTTCAAGTTCTCAGT  
TCCAGCTATTTTGAAATAGACAGTCCATTTTGTAGCTACAGTCACCCAAC  
CCGGCTGTCAGACATTGGAACCTTACTCCTATTGAACTGTGTATTTGTAC[C/  
T]CATTCACCAAACCTCTCTTTGGGCTTTCAGTTTACAACCTGGGATGATCCT  
GGGAAAACCTAAAGTAAATCAGACACCCGACGTGTGAGCTAGGTTATAATA  
TGCCCAGTGGACCCTGGGGACATCTTAGCTTTCAGAGGTCATGCTGTCCA  
AGCTGACTGTGGGGCTTCCAGAAGGTGGGGAGAGGAAATGATGCAAT  
SG13S181

TGGGAAAACCTAAAGTAAATCAGACACCCGACGTGTGAGCTAGGTT  
ATAATATGCCCAGTGGACCCTGGGGACATCTTAGCTTTCAGAGGTCATGC  
TGTCCAAGCTGACTGTGGGGCTTCCAGAAGGTGGGGAGAGGAAATGATGC  
AATGGCCCATCAGAGGCACTACTTGGGGCCTGGGGCCAGAGTGCATGTCT  
AAG[C/G]CATTAAGGGGAGGGGAGAGCAGCCTTCATAATTATGAAGAGGA  
GTCTCAGGTGCACAGCTTCTGATGAGGGACAGCTTCTAATTGAAGACAGC  
ATTGTGTAATGCTCAAACCTCCCTGTCTTCAGAGTGCCTGCTGTATCCCACC  
ATCAGTTCTGTGACTTCTCCCTAAGCCTCAATTTTGCATGTGTTACATTGG  
GA  
SG13S182

CCTGCATAGCAAATTCTTGCAAATGTAGGGACTCAAAACAATATAA  
ATTTATTATCTGACAGTTTTTCTGGGTCAGAGGTCTTACTAGGCTGTAATC  
AGAGGGCAACCAAAGCTGTGATCTCAGCTGAAGCTCAGGATTCTCTTCCA  
AGCTCACTGGTTGTTGGCAGAAATCAGTTCTTTCCAGTTGGAAGACTAAAG  
[C/T]CTACAGTCTTCAGTCTCTAGAAGCCTTTTCTCTGGCACAGGTTTCTCT

FIG. 8.35



ACAACATGGCCATTTATGTCTTTAAGGCCAATAGGAGAACATGATTAGCA  
TATTTTTTTTAAAGTGAACCTTTAGACCCTTTTTTAAAGGCCTATCTGATTAGG  
CCAGGCCCAAGTGAGCTTTAAGTCAACTGATTAGAGATCTTAATTAC  
SG13S183

CTGAAGCTCAGGATTCTCTTCCAAGCTCACTGGTTGTTGGCAGAAT  
TCAGTTCTTTCCAGTTGGAAGACTAAAGCCTACAGTCTTCAGTCTCTAGAA  
GCCTTTTCTCTGGCACAGGTTTCTCTACAACATGGCCATTTATGTCTTTAA  
GGCCAATAGGAGAACATGATTAGCATATTTTTTTTAAAGTGAACCTTTAGAC[  
C/T]CTTTTTTAAAGGCCTATCTGATTAGGCCAGGCCCAAGTGAGCTTTAAG  
TCAACTGATTAGAGATCTTAATTACATCTGCAAAGTCCCTTCATGTTTACC  
GTATAACATAACTTAGTGAAAGGAGTGAAATTGCAACCAGGTTCTGCCTG  
CACTCCACGGAAGGGGATTCTGCAGAAGTGTGGGTACGCGGGGGGGTTA  
SG13S184

AGAACATGATTAGCATATTTTTTTTAAAGTGAACCTTTAGACCCTTTTT  
TAAAGGCCTATCTGATTAGGCCAGGCCCAAGTGAGCTTTAAGTCAACTGA  
TTAGAGATCTTAATTACATCTGCAAAGTCCCTTCATGTTTACCGTATAACA  
TAAGTGTGAAAGGAGTGAAATTGCAACCAGGTTCTGCCTGCACTCCAC[  
A/G]GAAGGGGATTCTGCAGAAGTGTGGGTACGCGGGGGGGTTATTTTGGGA  
TTCTGCCTACGTCACTGAGTCAAAAGAAGCTGAATGGTTGTGATGCTGAG  
GTTTTTGGGCAGCAGCAGTGTGTGTGTGTGAGTGAATTCATACGTATGACC  
ACCTGGGAAGAAAGGAGGCTGTGGTTTCCCTCCACCTCCTGGCAGACAGA  
SG13S185

GGGATTACAGACACACACTGCCACGCCTGGCTAATTTTTGTATTTTT  
AGTAGAGACGAGGTTTTGCCATGTTGGCCAGGCTGGTCTTGAACCTCCTGA  
CCTCAAGTGATCCGCCCACCTCAGCCTCCCAAAGTGCTGGGATTACAGAC  
GTGAGCCACCATTAAACCATTTTTCTATCTCCTGTGGGAAAGGGCACAGTG  
A[A/G]AGAACAGATGAAGCTGAGACATAACAAGTGAACCTCCTCCCTCCTCTC  
CATTTAGACTAAAATAGGATTATTCATACTGAGATTCTCCCTGGTTGCAA  
GAGATAATCTGTGCAACTGGGTTTTTACAATTATCCCTACCCTATGCTTTC  
CTCATCTGTCTTCCTCGTAGTCAGCTCAGGCTGCTATAACAAAACACCA  
SG13S405

GGCAGATTCGGTGTCTAATGAGGTCCTGCTTTCCAGTTTATAGACA  
GTGCCCTTATCGCTACCGCCTTACACAGTGGAAGGAGAGGACGAGAAGCTC  
CTTGGGCTTTTTTTTGTCTTTCTTTCTCTCTCTCTCTTTTTTTTTTTTTT  
AATAAGGTCATCTTAGTCCATTTTGTGTTGCTAAAAGGAACATCT[A/G  
]AGGTTGAGTAATTTATTTTATTTTAAAAAGTGGCCAGGCATGGAGGCTTA  
TCCTGTAACCCTAATCCTTTAGGAGGCCAAAACAGCAGGATTGTTTGAGG  
CCAGGAGTTCAAGACCAGCCTAGGCAAGATAGTGAGACCCCATCTACCCC  
ATCTCTACTAAAATTTTAAAAAATTAGCTGTGTGTTGTAAAGTGTGC  
SG13S91

AATTTATTTTATTTTAAAAAGTGGCCAGGCATGGAGGCTTATCCTGT  
AACCTAATCCTTTAGGAGGCCAAAACAGCAGGATTGTTTGAGGCCAGGA  
GTTCAAGACCAGCCTAGGCAAGATAGTGAGACCCCATCTACCCCATCTCT  
ACTAAAATTTTAAAAAATTAGCTGTGTGTTGTAAAGTGTGCTTGTAGTCCC  
[A/G]GCCACTTGAGAGGCTGAGGTGGGTGGAGTTCAAGGCTGCAGTGAGT  
TATGATTGAGCCACTGCACTCCAACCCGGGTAAACGGGGCAAGACCTTGTCT  
TCTATTTAAAAAATCTTTATGTGGCTCACTATTCTGGGTGGCTGG  
AAAGTTCAAGATTGGGCATCTGCATCTGGTGACAGCCTCATGTGCTTCC  
SG13S186

TAACCCTAATCCTTTAGGAGGCCAAAACAGCAGGATTGTTTGAGGC

FIG. 8.36

CAGGAGTTCAAGACCAGCCTAGGCAAGATAGTGAGACCCCATCTACCCCA  
TCTCTACTAAAATTTTAAAAAATTAGCTGTGTGTTGTAAAGTGTGCTTGTA  
GTCCCGGCCACTTGAGAGGCTGAGGTGGGTGGAGTTCAAGGCTGCAGTGA  
G[A/T]TATGATTGAGCCACTGCACTCCAACCCGGGTAACGGGGCAAGACCT  
TGTCTCTATTTAAAAAATAATCTTTATGTGGCTCACTATTCTGGGTGG  
CTGGAAAGTTCAAGATTGGGCATCTGCATCTGGTGACAGCCTCATGTCGC  
TTCCAGTCATGGGGGAAGACGAAGGAGAGCTGGCACGTGCAGATATCAC  
G

SG13S187

ATCCTTTAGGAGGCCAAAACAGCAGGATTGTTTGAGGCCAGGAGTT  
CAAGACCAGCCTAGGCAAGATAGTGAGACCCCATCTACCCCATCTCTACT  
AAAATTTTAAAAAATTAGCTGTGTGTTGTAAAGTGTGCTTGTAAGTCCC  
CACTTGAGAGGCTGAGGTGGGTGGAGTTCAAGGCTGCAGTGAAGTTATGAT  
T[A/G]AGCCACTGCACTCCAACCCGGGTAACGGGGCAAGACCTTGTCTCTA  
TTTAAAAAATAATCTTTATGTGGCTCACTATTCTGGGTGGCTGGAAA  
GTTCAAGATTGGGCATCTGCATCTGGTGACAGCCTCATGTCGCTTCCAGTC  
ATGGGGGAAGACGAAGGAGAGCTGGCACGTGCAGATATCACGTGTTGAG  
G

SG13S188

TTAAAAAATTAGCTGTGTGTTGTAAAGTGTGCTTGTAAGTCCC  
ACTTGAGAGGCTGAGGTGGGTGGAGTTCAAGGCTGCAGTGAAGTTATGATT  
GAGCCACTGCACTCCAACCCGGGTAACGGGGCAAGACCTTGTCTCTATTT  
AAAAAATAATCTTTATGTGGCTCACTATTCTGGGTGGCTGGAAAGTT  
CA[A/G]GATTGGGCATCTGCATCTGGTGACAGCCTCATGTCGCTTCCAGTC  
ATGGGGGAAGACGAAGGAGAGCTGGCACGTGCAGATATCACGTGTTGAG  
GGCAGAAGCGAGAGAGAGAGGGGAGAGATGCCAGGCTCTTTTAAACAAC  
CAGCACTGGGGAACTAATAGAGTGAGAGCTCACTGACTCCTGAGGGAG  
GACAT

SG13S406

ATGGGGGAAGACGAAGGAGAGCTGGCACGTGCAGATATCACGTGT  
TGAGGGCAGAAGCGAGAGAGAGAGGGGAGAGATGCCAGGCTCTTTTAA  
CAACCAGCACTGGGGAACTAATAGAGTGAGAGCTCACTGACTCCTGAGG  
GAGGACATTAATCTATTGATGAGCGACCTGCCTCCATGACCCAAACACCT  
CCAA[C/T]GATACCCACCTCCAACACTGCCACACTAGGGATTAACCTTCA  
ACTTGAGATTTAGAGGGGGGAACTTACAACTATCGCAGGCACTAATAC  
CACTCATGAGGGCTCCACCTTCATGACCTAATCACTTCCTAAAGGCCTTAC  
CTCTTAATCTCATCACATTGAGGATTCGATTTCAACTTGAATTTTGGGGG  
AC

SG13S92

CTCGCTGCCACCTGAAATTAGATCATTTATTTACCCCTTTATTTGTT  
CAGTTTGCCTTGTCGTTAGAATATAAGCTTCCAAAGGGCAGGAGCTTTGC  
CTATATTGTTAGGCCGGGCATACAATGAGCACTCAAAAAAATATTTGATG  
AGTGTATGAAAGAACAGACTGGGTTATGTAATTGTGCCTACTTACCTATA[  
C/T]GACCGTGTGGTGGGGTTTATGGTGGGTGTGGTGGTGATGGCTATAGG  
GCTATAAGCAAATTTGGGACAGGGAGTCTAAGAAATGTTCTTAAATTTTA  
GTAAGCAAAGCATCCTCTACAGAACCTGTCTTAAACATGAAAGTTCCTT  
AGTGCTACCCCCAGAGGTATGATTTGGTAGGTCAAGGATAGGGCCTGGAA

SG13S93

TGCCACCTGAAATTAGATCATTTATTTACCCCTTTATTTGTTCAGTT  
TGCTTGTCCGTTAGAATATAAGCTTCCAAAGGGCAGGAGCTTTGCCTATA

FIG. 8.37

TTGTTAGGCCGGGCATACAATGAGCACTCAAAAAAATATTTGATGAGTGT  
ATGAAAGAACAGACTGGGTATGTAAATTGTGCCTACTTACCTATATGACC[  
A/G]TGTGGTGGGGTTTATGGTGGGTGTGGTGGTGATGGCTATAGGGCTAT  
AAGCAAATTTGGGACAGGGAGTCTAAGAAATGTTCTTAAATTTTAGTAAG  
CAAAGCATCCTCTACAGAACCTGTCTTAAACATGAAAGTTCCTTAGTGCT  
ACCCCCAGAGGTATGATTTGGTAGGTCAAGGATAGGGCCTGGAAATTCA  
SG13S36

CCTGTCTTAAACATGAAAGTTCCTTAGTGCTACCCCCAGAGGTAT  
GATTTGGTAGGTCAAGGATAGGGCCTGGAAATTCACATTCTTGTTAAGAT  
GTTCTTCATCCGGGGTTTGTGACCACCTTTTCAGAAGATTTTGTCTGTGA  
GCTGTACTACCCAATGCAGTAGTTCGTAGTCAGTGTGGCTCCTGAGCCCT[  
C/T]GAAGTGTAGCTCCTCTGAAGTGAAGACGTGCTGTAAATGTAAATTGCA  
CACCGGAGTTTGAAGAGTTAATACAAAGAAAAAGGAATGCAAAACATCT  
CATTAATAATGCTTTACACTGATTACATATTGAAATGGTAATCTTGTAGAT  
ATAGTGC GTTAAATAAAATATACTGTTAGGCTTAATTTACAGTCTTTATA  
SG13S407

TCAGCCAATCAACAAGAGGGCAAAAGAACAACATTTGATGTGTA  
ATTACTTAATTTAGTGCATATGCATTTGGGTCCCTCAATGTCAGCACTATGG  
CAACCAGAACATGGCCACAATAACTGTCTGGAAATGTCTATTCTTACCTG  
GACCCAGCAGGCCATGCCCCACTGATTATATAATCTCCCTCTCTCCTTGTT  
A[C/T]GGTCTGAATGCTTGCATCCCTCAAAAATTCATGTGTTGAAATCCTA  
ACCCCCAAGGTGATGATATTAGGAGGTCTGGCCTTTTGAGAGGTAATTAGG  
TCATGAAGACAGCATCCTCATGAATGGGATTAGTGTCTTATAAAATAGG  
CCCAAGGGAGCTCATTCACTTTGTCCACCATGTGAGAACACAGCGAGAGG  
G

SG13S408

CCTTGTTACGGTCTGAATGCTTGCATCCCTCAAAAATTCATGTGTTG  
AAATCCTAACCCCCAAGGTGATGATATTAGGAGGTCTGGCCTTTTGAGAGG  
TAATTAGGTCATGAAGACAGCATCCTCATGAATGGGATTAGTGTCTTATA  
AAATAGGCCCAAGGGAGCTCATTCACTTTGTCCACCATGTGAGAACACAG  
[C/T]GAGAGGGGCACCATTTATGCACCAGGAAATGGGCCTTTTCCAGACAAT  
CTGTCTGGTGCCTGGATCTTGGACTTCACAGCCTCTAGAACTGTGAGAAAT  
AATTTGTTTTTTTATAAGCCACCAAATCTATGGTTTTTTTTTATAGAAACCGT  
ATGGACTAAAACACTCCCTAATTATTTAAACTTATCAGTGCCTG

SG13S7

CTAACCCCCAAGGTGATGATATTAGGAGGTCTGGCCTTTTGAGAGGT  
AATTAGGTCATGAAGACAGCATCCTCATGAATGGGATTAGTGTCTTATA  
AAATAGGCCCAAGGGAGCTCATTCACTTTGTCCACCATGTGAGAACACAG  
CGAGAGGGCACCATTTATGCACCAGGAAATGGGCCTTTTCCAGACAATCT  
GT[C/T]GGTGCCTGGATCTTGGACTTCACAGCCTCTAGAACTGTGAGAAAT  
TAATTTGTTTTTTTATAAGCCACCAAATCTATGGTTTTTTTTTATAGAAACCGT  
AATGGACTAAAACACTCCCTAATTATTTAAACTTATCAGTGCCTGGGC  
AGTGACATATTAAGAAGATGCTGGCCAACGTAATTGACACCATAAGGCT

SG13S37

TCATCTCATTTTAACCTTTTGTTCACAAAGCCTCTCTTTTCATGACTTC  
CCCGCCTTCATTTTCCCATATGGTGGGGTTATTATTAAGACATTAAATGA  
GAGTGGACAGGTAGGCAAAGGAGGTGGGTGCAGGGGAGTTGAGGGTTG  
CCTGTGTACTTTTCTAGACTGTTCCACTTCACATCAGTGAAATATCCCA[A  
/G]TTGATACTATCATGAAACAAAGCAAATGAAATGCTGAGCACGGAGCTT  
CGTCTTGATGAAATGCTGAAAGAAAAGAAAGGAAAAATAAAGTAGCCAT

FIG. 8.38

TATTTTTGCCCTTCCTCCCACCCCATGTTTACTACTCTTATTTCTCTTTTGT  
ATTGTTGTGTTGGAAGCACAGCATCAGAAAACTCCCAGTTTGTAGA  
SG13S409

ACAGGTAGGCAAAGGAGGTGGGTTGCAGGGGAGTTGAGGGTTGCC  
TGTGTACTTTTCTAGACTGTTCCACTTCACATCAGTGAAATATTCCCAATT  
GATACTATCATGAAACAAAGCAAATGAAATGCTGAGCACGGAGCTTCGTC  
TTGATGAAATGCTGAAAGAAAAGAAAGGAAAAATAAAGTAGCCATTATTT  
TT[A/G]CCCTTCCTCCCACCCCATGTTTACTACTCTTATTTCTCTTTTGTAT  
TGTGTGTTGGAAGCACAGCATCAGAAAACTCCCAGTTTGTAGAGATAA  
CTCAGTGTTTAGTTCACTTAAACCTGAGAAAGGAGAAGAGGATGCCACCG  
TGAGGTCCAGGACGTAAAGAGGAAAAAAACAGACAAAAAAATCCATATG  
A

SG13S8

CAGGTAGGCAAAGGAGGTGGGTTGCAGGGGAGTTGAGGGTTGCCT  
GTGTACTTTTCTAGACTGTTCCACTTCACATCAGTGAAATATTCCCAATTG  
ATACTATCATGAAACAAAGCAAATGAAATGCTGAGCACGGAGCTTCGTCT  
TGATGAAATGCTGAAAGAAAAGAAAGGAAAAATAAAGTAGCCATTATTTT  
TG[A/C]CCTTCCTCCCACCCCATGTTTACTACTCTTATTTCTCTTTTGTATT  
GTGTGTTGGAAGCACAGCATCAGAAAACTCCCAGTTTGTAGAGATAAC  
TCAGTGTTTAGTTCACTTAAACCTGAGAAAGGAGAAGAGGATGCCACCGT  
GAGGTCCAGGACGTAAAGAGGAAAAAAACAGACAAAAAAATCCATATGA  
A

SG13S410

TTCGTCTTGATGAAATGCTGAAAGAAAAGAAAGGAAAAATAAAGT  
AGCCATTATTTTTGCCCTTCCTCCCACCCCATGTTTACTACTCTTATTTCT  
CTTTTGTATTGTTGTGTTGGAAGCACAGCATCAGAAAACTCCCAGTTTGT  
AGAGATAACTCAGTGTTTAGTTCACTTAAACCTGAGAAAGGAGAAGAGGA  
[C/T]GCCACCGTGAGGTCCAGGACGTAAAGAGGAAAAAAACAGACAAAA  
AAATCCATATGAAATGAAATGTGAAAGAGGCGCTTTCGAGCAGATGAGT  
GTTGTAGATTACAGTGTTGAGAGCTGTTTGTGTCCAGAGCTGCTTGCTGCA  
CCTGGCGGGATAAACACTGGTCTAACAGAGGATCCTTGTTTCAAGGAGGC  
T

SG13S411

AAGAAAAGAAAGGAAAAATAAAGTAGCCATTATTTTTGCCCTTCCT  
CCCACCCCATGTTTACTACTCTTATTTCTCTTTTGTATTGTTGTGTTGGAA  
GCACAGCATCAGAAAACTCCCAGTTTGTAGAGATAACTCAGTGTTTAGT  
TCACTTAAACCTGAGAAAGGAGAAGAGGATGCCACCGTGAGGTCCAGGA  
C[A/G]TAAAGAGGAAAAAAACAGACAAAAAAATCCATATGAAATGAAAA  
TGTGAAAGAGGCGCTTTCGAGCAGATGAGTGTTGTAGATTACAGTGTTGA  
GAGCTGTTTGTGTCCAGAGCTGCTTGCTGCACCTGGCGGGATAAACACTG  
GTCTAACAGAGGATCCTTGTTTCAAGGAGGCTGCCTTTTATTTGGGGGGAC  
AA

SG13S9

ATTATTTTTGCCCTTCCTCCCACCCCATGTTTACTACTCTTATTTCT  
CTTTTGTATTGTTGTGTTGGAAGCACAGCATCAGAAAACTCCCAGTTTGT  
AGAGATAACTCAGTGTTTAGTTCACTTAAACCTGAGAAAGGAGAAGAGGA  
TGCCACCGTGAGGTCCAGGACGTAAAGAGGAAAAAAACAGACAAAAAA  
[C/T]CCATATGAAATGAAATGTGAAAGAGGCGCTTTCGAGCAGATGAGT  
GTTGTAGATTACAGTGTTGAGAGCTGTTTGTGTCCAGAGCTGCTTGCTGCA

FIG. 8.39

CCTGGCGGGATAAACTGGTCTAACAGAGGATCCTTGTTTCAAGGAGGC  
TGCCTTTTATTTGGGGGGACAAAATTGTTCTTGAAAGCTGCTCAGTGGTT  
SG13S412

TTTGTATTGTTGTGTTGGAAGCACAGCATCAGAAAACTCCAGTT  
TTGAGAGATAACTCAGTGTTTAGTTCACTTAAACCTGAGAAAGGAGAAGA  
GGATGCCACCGTGAGGTCCAGGACGTAAAGAGGAAAAAACAGACAAAA  
AAATCCATATGAAATGAAAATGTGAAAGAGGCGCTTTCGAGCAGATGAGT  
GTT[A/G]TAGATTACAGTGTTGAGAGCTGTTTGTGTCCAGAGCTGCTTGCT  
GCACCTGGCGGGATAAACTGGTCTAACAGAGGATCCTTGTTTCAAGGA  
GGCTGCCTTTTATTTGGGGGGACAAAATTGTTCTTGAAAGCTGCTCAGTGG  
TTCAAGCTACAGCATGGTGGACTAGCAGAATGGACTCCAGGGCCTCCGAG  
GA

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TTTTGAGAGATAACTCAGTGTTTAGTTCACTTAAACCTGAGAAAGG  
AGAAGAGGATGCCACCGTGAGGTCCAGGACGTAAAGAGGAAAAAACAG  
ACAAAAAATCCATATGAAATGAAAATGTGAAAGAGGCGCTTTCGAGCA  
GATGAGTGTTGTAGATTACAGTGTTGAGAGCTGTTTGTGTCCAGAGCTGCT  
TGC[C/T]GCACCTGGCGGGATAAACTGGTCTAACAGAGGATCCTTGTTT  
CAAGGAGGCTGCCTTTTATTTGGGGGGACAAAATTGTTCTTGAAAGCTGCT  
CAGTGGTTCAAGCTACAGCATGGTGGACTAGCAGAATGGACTCCAGGGCC  
TCCGAGGAGACAGTGACTGCTGCCAGAAATAGTCAAGGATAGAAAGGAA  
GGA

FIG. 8.40

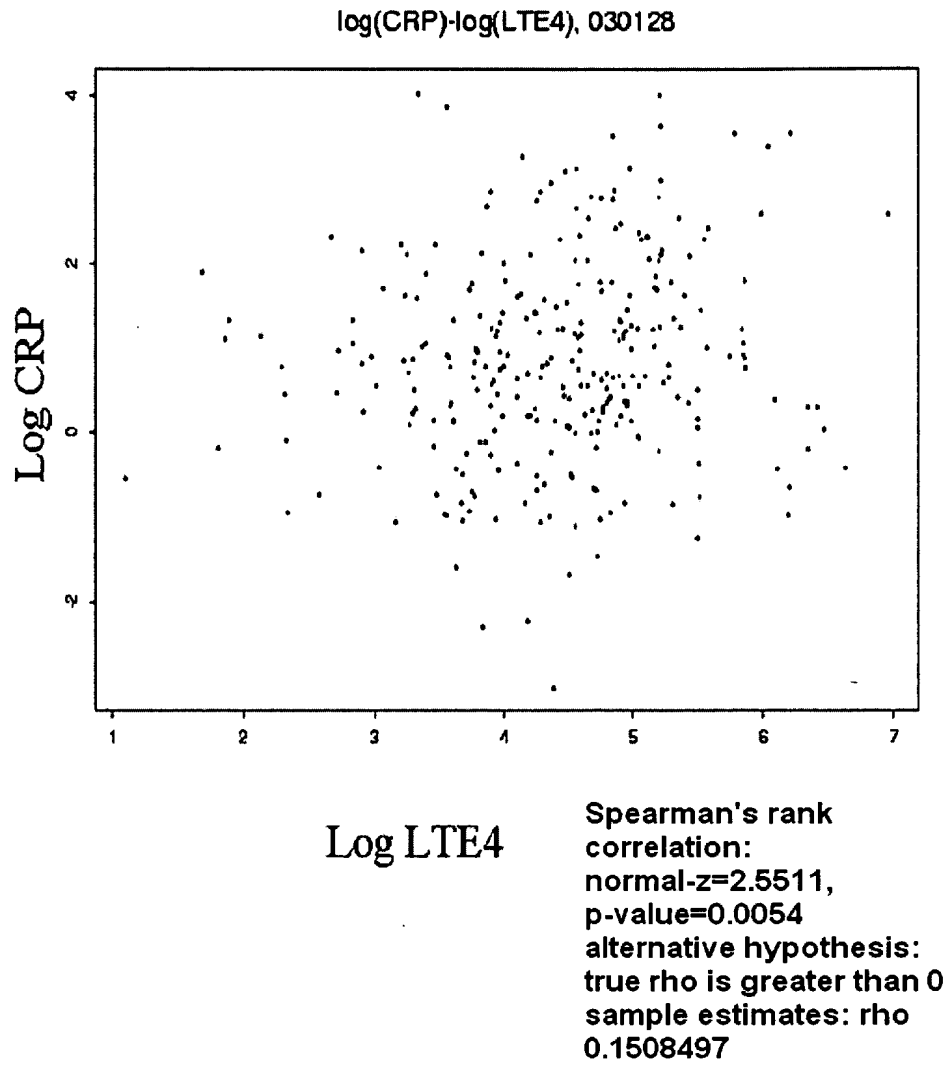
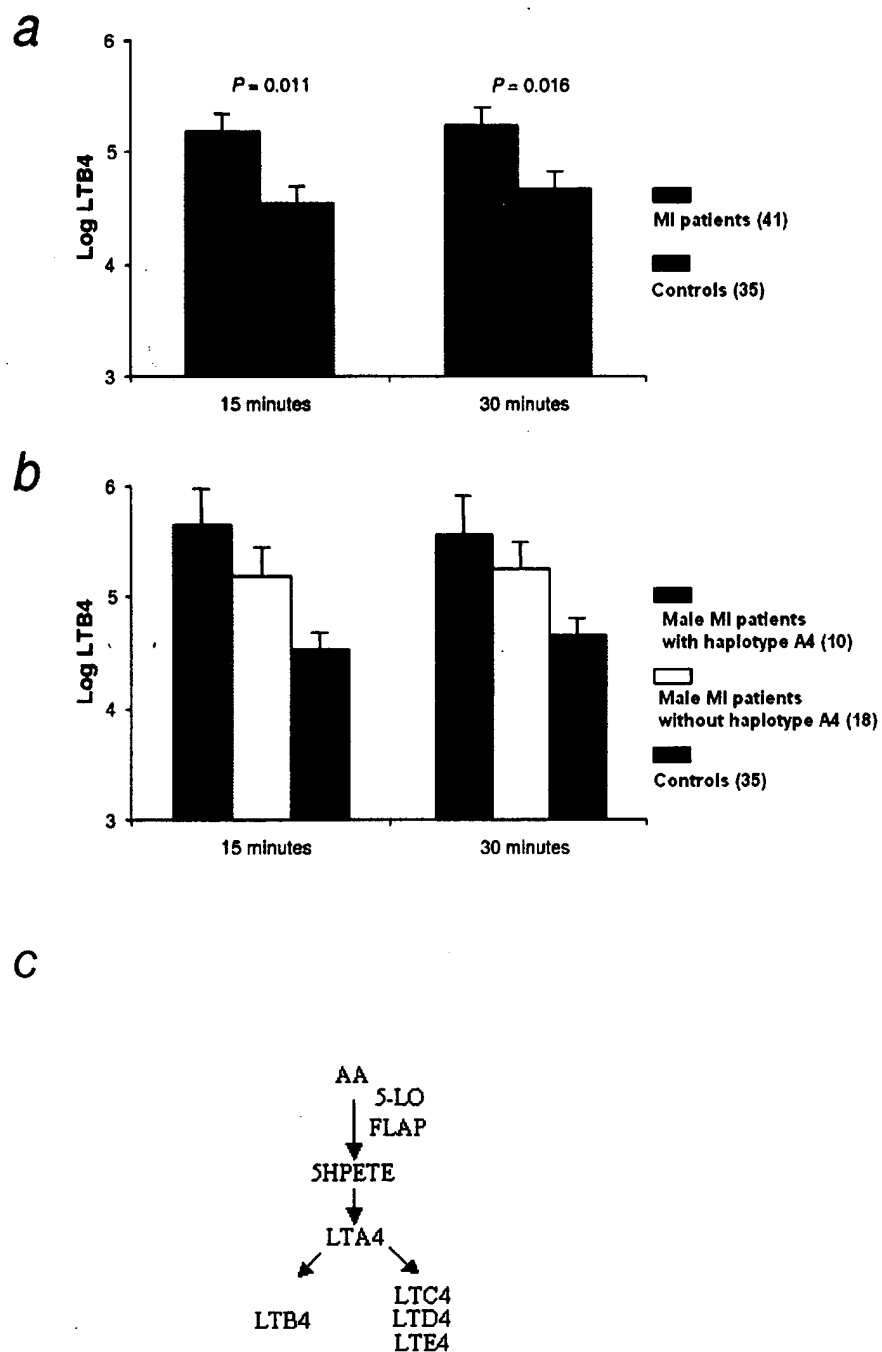


FIG. 9

**Figure 10**



**FIG. 10**

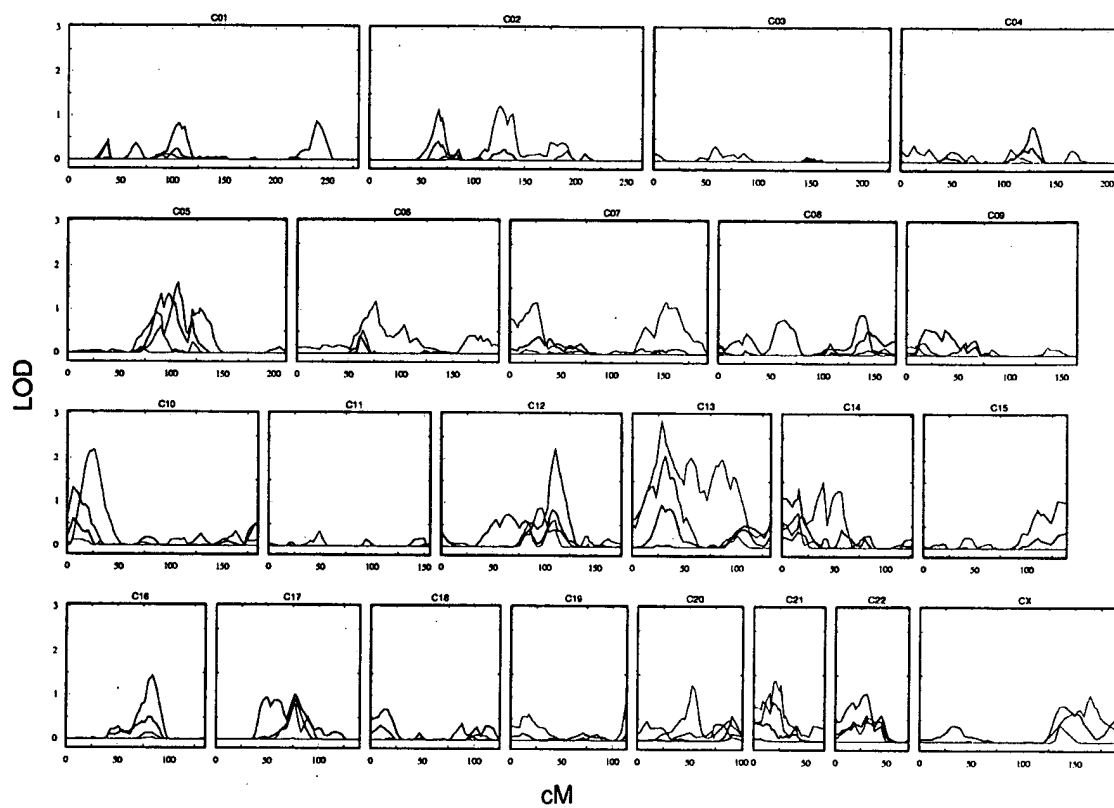


FIG. 11



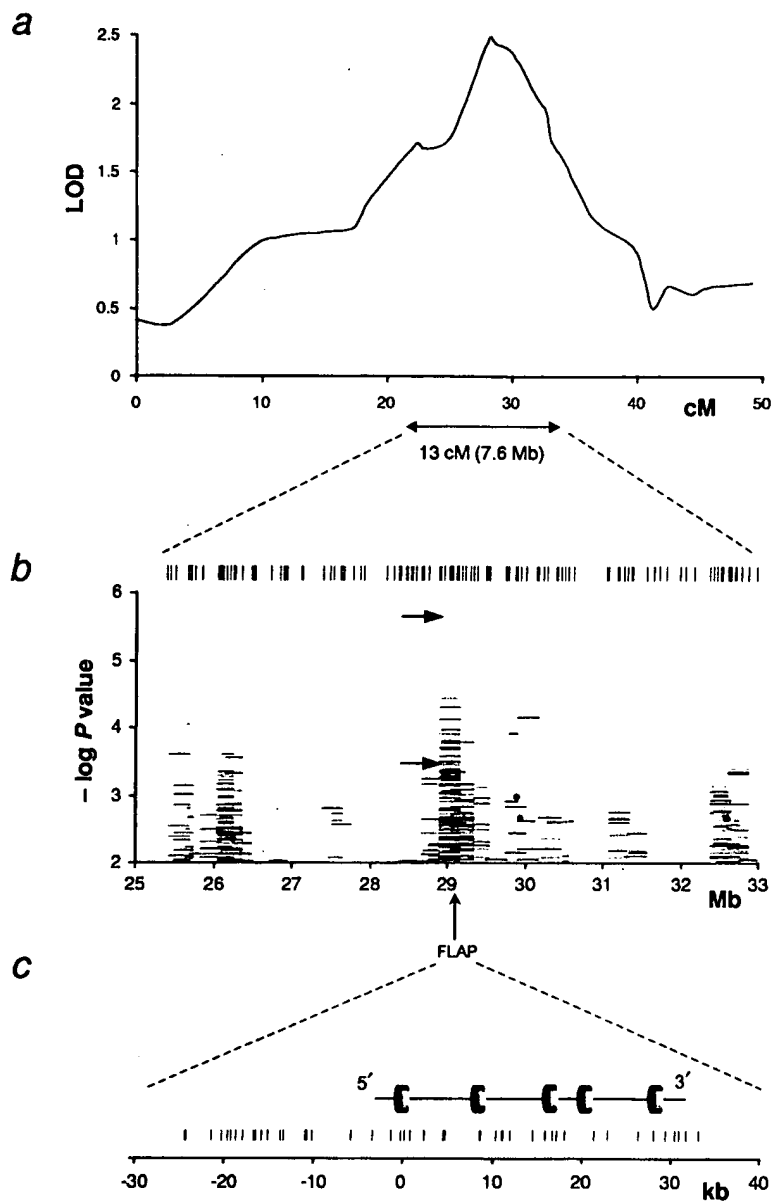


FIG. 12

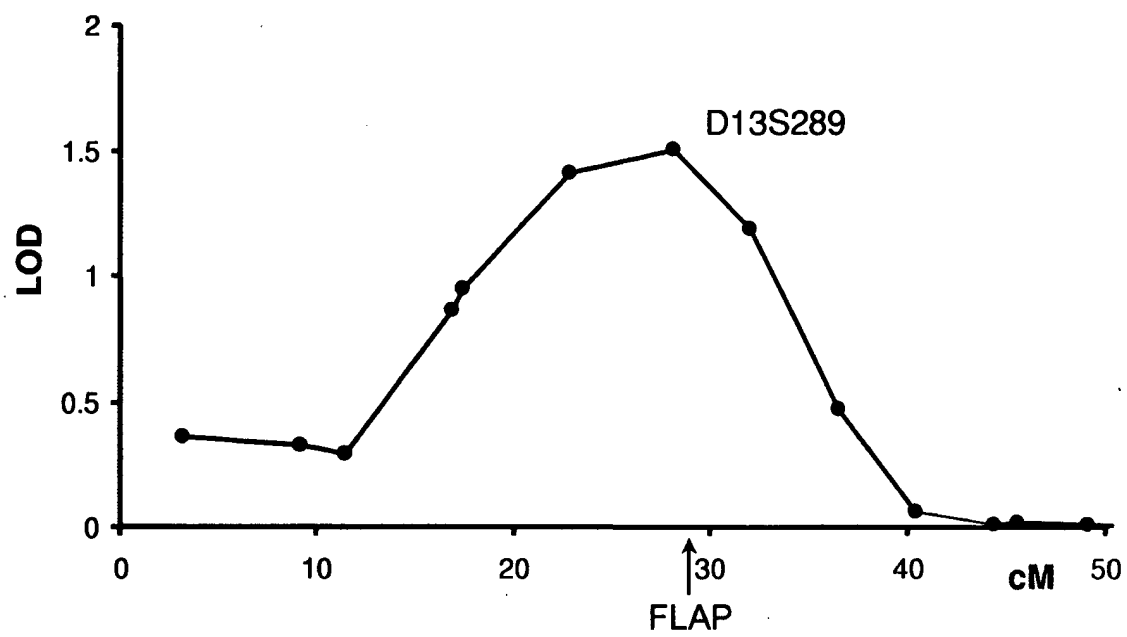


FIG. 13

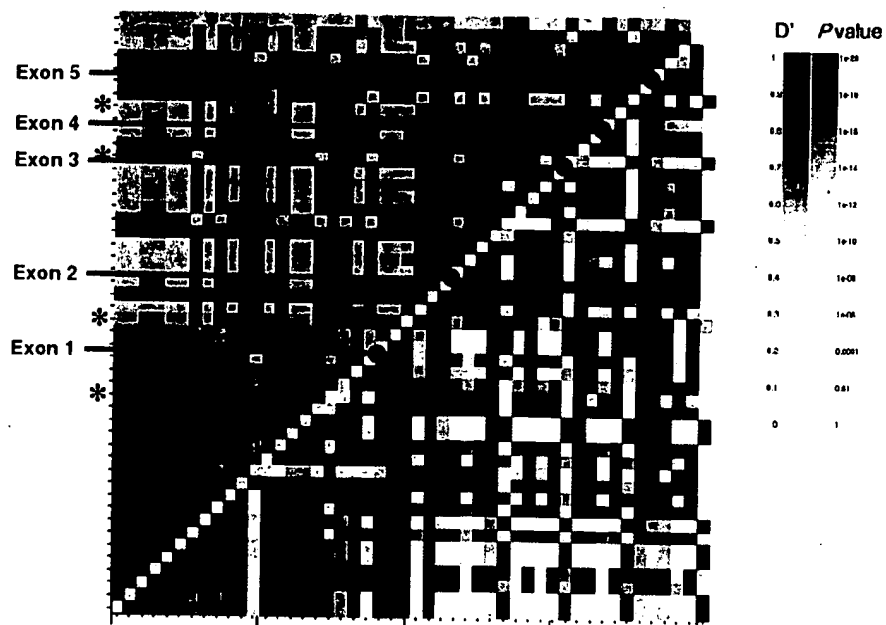


FIG. 14



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